

THE HP Palmtop Paper

U.S. \$7.95

Now you can do all your...

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WWW/LX Plus
Powerful Palmtop Email Client!

FREE Email *at*
palmtop.com!

*German auto engineer and his...*

HP Palmtop

Work Hard & Play Hard!



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User to User: Software Updates, Websites — Lots of HP 200LX Activity

HP Palmtop User Groups

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**WWW/LX Plus
My Most-Used Application**

This suite of four integrated applications turns the Palmtop PC into a communications pro!

**Email Just Got Easier (and Free!)15
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Use the built-in cc:Mail application to send and receive email - free of charge!

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**Work Hard, Play Hard
with My HP Palmtop**

Whether he's test driving sports cars, or roaring through a European Road Rally, this engineer stays in tune and in touch with his HP Palmtop.

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Files on July/August 98 ON DISK

"Wow, is this thing fast! And all that memory!"

—Robert J. Vondra, 8 Meg DoubleSpeed 200LX owner

Upgrade *your* 200LX to 8 or 32 Meg DoubleSpeed

Now available **WORLDWIDE!** Free 90 day Warranty



See pricing and contact info below.

That's right! No matter where you live, Thaddeus Computing can now upgrade your HP 200LX to 8 or 32 Meg and DoubleSpeed!

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We specialize in fast turnarounds, and U.S. customers have a 1-day turnaround option. Your upgraded palmtop comes back to you with a free 90 day Warranty that you can upgrade to one or two years.

Still not sure? Here's what some satisfied customers have to say:

"It works great!" —Steve Carder

"I highly recommend the Thaddeus Palmtops

for anyone thinking of upgrading." —Robert J. Vondra

"The 8 meg, DoubleSpeed 200LXs are great!" —Craig de Fasselle



IMPORTANT!

ALL CUSTOMERS: Upgrading removes all data, so be sure to do a complete back-up before shipping. Use a trackable method of shipping. Upgrading voids HP warranty. See order cards in this issue for complete details. **In the U.S.:** In a hurry? One day turnaround service is available for \$55 shipping (instead of \$9.50 5-Day turnaround). **Outside U.S.:** Shipping charge is \$35. We cannot guarantee delivery time outside U.S.. Write **"Used equipment for repair"** on shipping container.

Use order cards in issue or contact info below.

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BRAND NEW HP 200LX

- Upgraded to DoubleSpeed
- Upgraded to 8 or 32 MegaBytes
- In the Box, with Manuals
- FREE 1-Year Warranty
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- Warranty Upgrade Options
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Used Means Like New!

We buy a lot of palmtops. We resell the best. We maintain very high standards for palmtops we resell. Those that don't make the grade are used for parts. As of this printing, *no Thaddeus Computing customer has ever exercised their 30-Day Return Option on a used palmtop!* HP engineering combined with Thaddeus Computing's quality control processes ensures that your Used palmtop will meet or exceed your hopes!

30-Day Money-Back Guarantee! • SHIPPING: \$9.50 U.S. / \$35 Non-U.S.

PRICING	8 Meg DoubleSpeed	32 Meg DoubleSpeed
Upgrade from:		
1, 2 or 4 Meg 200LX	\$249.00	\$499.95
8 Meg DoubleSpeed 200LX	N/A	\$374.95
5 or 6 Meg DoubleSpeed 200LX	\$199.00	\$449.95
Purchase		
Brand New 200LX	\$745.00	\$999.95
Used (Like-New) 200LX	\$525.00	\$785.95
Warranty Extensions		
FREE 90 day Warranty extended to 1-year . . .	\$25 (on upgrades and like new units)	
FREE 90 day Warranty extended to 2-years . . .	\$75 (on upgrades and like new units)	
FREE 1-year Warranty extended to 2-years . . .	\$50 (on brand-new units)	

"I received my new HP a few days ago and all is well with the world. I can't get over how great the double-speed is. Thank you and everyone at Thaddeus for putting together this excellent product." —Larry Castor

ORDER NOW...Please fill out either of the order cards in this issue and return. For Upgrades, please enclose completed order form with Palmtop.

Call: 800-373-6114 or 515-472-6330 FAX: 515-472-1879

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MAIL: Thaddeus Computing, 110 N Court Street, Fairfield, Iowa 52556 USA

See pricing at left

ORDER ONLINE!

www.thaddeus.com

Publisher's Message



Hal Goldstein

I have long thought that email is the "killer app" that will bring everyone to computers. Once a person, no matter how computer-phobic, really understands the benefits, the ease, the benefits, and the low cost of email, he will want it. The email adoption pace will accelerate as more friends, business associates, and family have email addresses. Perhaps, in the not-to-distant future, you will be able to buy "email handhelds" as easily as you can

buy calculators or telephones today. The function of these voice recognition machines would be to wirelessly send and receive email (and perhaps for \$10 more you can get Internet surfing).

In the meantime HP LX users can manage email from the palmtop using built-in ccMAIL or commercial WWW/LX Plus. As you will read, these solutions aren't elaborate kludges for the technically elite. Rather, they are fast, easy-to-use, flexible solutions that some users might find superior to desktop email management. Impressive.

These developments affirm the point of my User to User article: there continues to be lots of 200LX software and web development. (Hopefully, by the time you read this our completely revised www.thaddeus.com web site will be available). The stable platform provided by this DOS palmtop continues to inspire not only new developments and new ways of using the palmtop. Ed Keefe in his profile describes innovative ways he used the palmtop to run the computer science department at a community college. German auto engineer, Gottfried Burckhardt, then describes using his "Palmi" in his profession and while auto racing.

You'll notice a different style in Basic and Quick Tips. Ed Keefe applied his creative juices with Smart Clip Basic Tips, and 1-2-3 Quick Tips.

Hal Goldstein

The HP Palmtop Paper

Increasing Your Personal
Power By Expanding Your
Palmtop's Potential

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POSTMASTER: Please send any address changes to *The HP Palmtop Paper*, Attn: Thaddeus Computing, Inc., 110 North Court Street, Fairfield, IA 52556.



Letters

Patient database jogs memory

I was inspired by Dr. Steve Carder's excellent article describing his professional relationship with his 200LX (see page 17, May/June 98 issue). I am a Cardiologist in private practice in Westchester, and use the 200LX to track the records of hundreds of patients in a simple, custom database. It includes the patient's name, an attached note and a category.

I found that there is a trade off between speed of data entry and organizational ability. In other words, if you have a database with a lot of sections for data entry, what you gain in sorting ability and organization, you lose in speed of data entry. The key for me was to sort by category, and then name. The categories are the hospital, ward in the hospital; and whether the patient is an inpatient or an outpatient. For example, a record might have the following information in it:

Name: Doe, John
Category: General
Hospital, 8 south
Note: 05/22/98
45 year old male
status post a GI Bleed.
meds: Prilosec 20mg
QD, Atenolol 50mg QD.
Hx HTN. No Cardiac Risk
Factors. Phone Number:
1-914-555-5555

When Mr. Doe is discharged from the hospital, I switch his category to "outpatient." Since I've set

things up so that the category is the first sorting parameter, patients automatically get organized by the name of the hospital and the location in the hospital. I can easily see who is in a particular hospital and a particular ward, or who is an outpatient. I use the Note field to add as much or as little detail about the patient as time allows. I always stamp the date (Fn + ",") prior to a Note entry. This is addition to a paper chart.

The database works in conjunction with my memory. When another physician asks me, "How is John Doe doing," I take out my HP and re-familiarize myself with some details of his history (i.e., the medications he takes, what happened at our last encounter, etc.). This helps me remember a vast array of other details about the patient. It's incredible the details you can remember if you get just a few bits of information about the patient, and the palmtop helps. It is almost as if the human mind was designed to have a palmtop computer to help it work to its full capacity.

Daniel K. Levy, MD
Levyymd@IBM.net

A visit to John McGowan's pub

My wife and I made it to visit John McGowan's pub a couple of weeks ago (see the Publican from Dublin article, page 32, Nov/Dec 97 issue). We had a great time, and John certainly serves up a great steak and a lovely pint o' the dark stuff. An excerpt is included below. See my web page of the trip

at www.garlic.com/~childers/uktrip for more.

Excerpt: Well... On landing in Heathrow, we got into the rental car and headed off. After making several circles around Dublin, we stumbled upon John McGowan's pub. We stopped in and introduced ourselves. John was nice enough to show us the way to our Lodge, the Addison Lodge. After a shower (we'd been in the same clothes more than 24 hours straight... YUCK!!) we headed back to McGowan's for some food. And great food it was! I don't know what was better, the Guinness or the steak. At any rate, I knew that when we had finally made it to McGowan's we'd reached civilization again. We wound up heading to bed at 1:30, Dublin time.

Bill Childers
110417.3670@compuserve.com

Haiku mistake

I am a Japanese reader of *The HP Palmtop Paper*. I found a mistake in page 28 of Vol. 7, Number 3, 1998 (the Computer HAIKU article). The background picture of this page is a set of three Chinese Characters. They are upside down. It looks strange for us. When I looked at this page, I smiled.

Yoshihiro Kawabata
Tokyo, Japan

[Very sorry. We were trying to be clever — guess it showed we didn't succeed — Hal.]

Calculating Easter Sunday

In the Christian Church, the date Easter is celebrated varies, depending on when the first full moon is after the Spring equinox. There is a formula for determining the date and it can be calculated using the year as the only independent variable. This letter describes how the HP Palmtop Solver Application can be used to determine the date of Easter for a given year.

Easter Day is defined as the first Sunday after the full moon (the "paschal moon") that occurs on, or next after, the vernal equinox (taken as March 21st). If the paschal occurs on a Sunday, Easter Day is the succeeding Sunday. The algorithm used is described in *The Art of Computer Programming, Volume 1, Fundamental Algorithms*, by Donald E. Knuth. The origins of the algorithm go back to 457 A.D., and this version was described in the late 16th century by Christopher Clavius, a German Jesuit mathematician.

My first thoughts were that a series of independent equations would be required, a cumbersome and very inelegant approach. The use of the LET and GET functions, L(...) and G(...), to hide intermediate variables from the Solver list, was important, but the most significant feature of the equation list is that when a term containing a LET function is multiplied by zero, the resulting assignment is still performed. There was the added advantage that each

(Continued on page 17)

New Products!

This section lists new products of interest to users of the HP palmtop PCs. New Products includes descriptions of hardware, software, books, videos, training and service offerings. Prices listed in this section are suggested retail. You may be able to get the products for less if you shop around.

HP Palmtop Paper Staff

SOFTWARE

Ear Trainer

A PC program designed to help you improve your musical ear. Runs on a HP 200LX or any desktop computer.

Price: \$9.95 (+\$3 S/H)

Contact: www.ilovemusic.com/

LPA PROLOG Professional

LPA Prolog ("PROLOG-16") is an expressive and powerful object-oriented programming system, which combines the best of AI and OOPs. Based on the 8-bit and 16-bit implementations of micro-PROLOG, PROLOG-16 used a combination of incremental and optimized compilation to provide interpreter-like flexibility, but with the speed of compiled code. Now superseded by LPA's 32-bit Prologs, PROLOG-16 has been released to the public domain. It is ideal for HP Palmtops and other 16-bit DOS machines.

Freeware

Web: www.lpa.co.uk/index.html

Mastery ■

Helps you master any subject. It especially good for foreign language learning. You create your own study questions. Mastery uses 4 virtual filing boxes: 1. Untried., 2. Correct, 3. Incorrect,

4. Mastered.

Mastery pulls the first question from the Untried box. If you answer it correctly, Mastery normally just puts it in the Correct box. However, if you tell Mastery that you have mastered the question, Mastery will put it in Box No. 4. If you miss the question, Mastery puts it in Box 3, the Incorrect box. Next, Mastery randomly picks a question from either Box 1, 2, or 3.

Most of the time Mastery will go on to the next Untried question, but nearly as often she will pick a question from the Incorrect box, since those questions need to be reviewed the most. Once in a while Mastery will pick a question from Box 2, the Correct box, since you have not mastered it yet. Mastery keeps asking questions until you have mastered all questions or until you decide to quit studying. When you come back to the lesson, you can continue where you left off.

Shareware

Web: www.ilovemusic.com/

PalDRAW 1.03 ■

PalDRAW is a Draw/CAD application specifically designed to work in HP 100/-200LX palmtops. PalDRAW gives to the user an effective tool for drawing sketches (on the fly), schematics, and serious final designs in the HP 100/200LX.

PalDRAW supports DXF and BMP file formats, and Palmtop icons ICN.

This new version fixes minor bugs, contains lot of Add-on's (a World map, a USA 50-states map, etc.) and now it can be run on Desktop PCs.

Shareware U.S. \$35.

Web: www.geocities.com/~aroch

StockChart ■

New version (see last issue) makes it easier to manage a list of stocks that you want information on. It uses the HP 200LX database to keep the stock entries, a macro to generate a list, and a processing program to generate the list of URLs to access the data.

Shareware

Web: www.leive.com/stkchart.zip

VIEW File Reader ■

VIEW is a file viewing utility that lets you view and print files from your palmtop PC. You can view and print files in the following formats:

Wordperfect (5.0 to 7.0), Word for Windows (1.0 to 6.0, and 97), Word for DOS, Ami Pro, Wordstar, Windows Write, Windows Notepad (which uses the ANSI character set), Microsoft Publisher, Rich Text Format (RTF), ASCII files, ANSI files, UNIX files, World Wide Web HTML tagged files, ClarisWorks (basic support only).

VIEW lets you see a quick preview of the first part of files. You can print or save all or part of the files viewed. You can print or save to file only those lines containing or omitting specified text.

VIEW allows you to search for text strings (both case-sensitive and case-insensitive), including across multiple files. You can also print or convert files to ASCII, including in

NEW HP 660LX Palmtop PC!

HP's new 660LX Palmtop PC is their new, top-of-the-line Windows CE device. The 660LX is an improved 620LX, with a built-in 56.6Kbps modem, and 32MB of internal RAM memory (double the memory of most color H/PCs). The 660LX is aimed at mobile professionals requiring faster access to their e-mail and the Internet, and ample storage space for applications, data and images.

To increase the usability and mobility of HP palmtop PCs, HP created the HP palmtop Asset Manager, and the mobile user's pack. The HP palmtop Asset Manager is a fully DMI-compliant software application that resides on the HP palmtop PC user's desktop or laptop. This program permits MIS managers to complete such functions as upgrading software and taking asset inventory from a centralized location rather than having to do so from each user's workstation. Additionally, for HP 620LX palmtop PC and HP 360LX palmtop PC users, HP offers a mobile user's pack, which includes a 33.6Kbps PC card/fax modem; HP's exclusive VGA-out PC card; and software, including games and business programs.

HP 660LX palmtop PC — \$999

HP 620LX palmtop PC — \$799

HP Palmtop Asset Manager — freeware (available at HP Web site)

HP Mobile User's Pack — \$199

HP palmtop PCs and the HP Mobile User's Pack are available through corporate resellers, including Ingram Micro and Merisel, as well as through such retail locations as CompUSA, Computer City and Office Depot. For more information on where to buy HP palmtop PCs, click on "Where to Buy" at the HP handheld PC web site: www.hp.com/handheld.

Do you have a Palmtop you no longer use? *We'll BUY IT... even if it's broken!*

We buy used palmtops and accessories. (Even in large quantities)

Palmtops:

HP 95LX
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HP 200LX
HP 1000CX

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Flash and SRAM cards
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Other items

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You will receive a FREE \$35 one-year subscription (or renewal) to Handheld PC Magazine when you send in your palmtop.

format suitable for import to word processor, directly from the file selection menu.

This newest version of VIEW lets you toggle through the HP Palmtop display modes (80x25, 64x18, 40x16). Press H while viewing.

Shareware

Web: www.nrcan.gc.ca/~mdrury/shware.html

SERVICES

palmtop.com

Provides e-mail service to all users of HP Palmtops for free. This service gives you e-mail on your HP 100/200LX without taking up valuable RAM that you could otherwise use for programs. If you are not local to the Silicon Valley (California) area, then it's a long distance phone call from your location.

To sign up for the service, go to the Web page: www.espmail.com/palmtop.htm

PUBLICATIONS

The Handheld Computer Almanac™ 2nd Edition

The Almanac is the definitive guide to products and services, from organizers to ruggedized terminals, for the handheld computer industry.

With more than 750 com-

panies and 1800 products from around the world, the Almanac includes descriptions of hardware, software, consultants, system integrators, wireless hardware and software, PC cards, VARs, accessories, and products and services in more than 50 additional categories, including vertical markets such as medicine and sales automation. A complete table of contents can be found at the Creative Digital web site at www.cdpubs.com. Detailed indices by company, product name, and platform make it easy to find specific products and services.

Printed in a convenient 8.5 x 11-inch format, The Handheld Computer Almanac includes more than 140 pages of product, service, and company descriptions, and almost 50 pages of indices. It is available directly from the publisher, at selected news stands, and from amazon.com.

Price: \$19.95 (+S/H)

Volume discounts available for resellers, distributors, corporate volume purchasers.

Contact: Creative Digital Publishing Inc.

Phone: 415-621-4252

Fax: 415-621-4922

Email: info@cdpubs.com

Web: www.cdpubs.com

EVENTS

1998 HP Handhelds User Conference

Plans are underway for the annual conference for enthusiasts of HP handheld calculators and palmtops PCs. The event will be held Saturday the 29th and Sunday the 30th of August, 1998 at the Hewlett-Packard site at Vancouver, WA (USA). You are invited to come to the conference, share your ideas, meet veterans in the field and have fun. Hewlett-Packard's Australian Calculator Operation has been invited to send representatives to the conference along with some veterans of the calculator group from Corvallis. Vendors are being invited to show their wares at the hotel. There will be no parallel sessions at the conference.

Conference registration: \$50 (early registration \$40). Registration includes a copy of the proceeds. The conference is sponsored by Handheld Computing, Inc., a non-profit foundation designed to provide educational forums on handheld computing. For further details about the conference, including information on how to register, email Megha Shyam at meghas@sparcom.com.

A block of rooms is being held for attendees at the Travel Lodge in nearby Portland, Oregon, located 5 minutes from the Portland Airport. (Address: 9727 NE Sandy Blvd, Portland, OR 97220; Phone: 503-255-1400. The hotel offers a shuttle service to the conference facility.) There is a special rate of \$65.00 per night for both single and double occupancy. Hotel arrangements can be made through da Vinci Technologies Group, Inc. Da Vinci will coordinate hotel arrangements and process your registration. Within the U.S., call 1-888-335-2252. Payments can be made by VISA, Master Card, American Express, or the Discover card.

Handheld98 Mailing List

Also, the Handheld98 Mailing List is now operational. The purpose of this mailing list is to discuss the plans for the 1998 HP Handhelds Conference. To subscribe to the list, send an email message to handheld98-request@brouhaha.com with the word "subscribe" in the body (no quotes). To send email to everyone on the mailing list, send the message to handheld98@brouhaha.com. Please do NOT send subscribe and unsubscribe requests to this address.

User to User: Websites, Software Updates — Lots of HP 200LX activity

By Hal Goldstein

I shouldn't have been surprised. Putting together Super Software Carousel meant visiting HP Palmtop-related web sites and keeping up with new and updated palmtop software. My conclusion: the HP 200LX continues to inspire incredible creativity, loyalty, and enthusiasm.

First of all, there is Mitch Hamm's S.U.P.E.R site located at www.palmtop.net. Mitch tells us that hits to his site are actually up! This site is THE worldwide repository of the latest Palmtop software. New and updated software appears every few days. You'll also find links and interesting articles and tips such as those at www.palmtop.net/~jorgen/tips.htm.

Your next stop should be David Sargeant's HP200LX Site at <http://coyote.accessnv.com/davidsa/hp/>. Here you will find articles, reviews, editorials, and links concerning the HP Palmtop. It is an excellent site. One link brought me to Beverly Howard's Kodak digital camera/HP Palmtop page at <http://ourworld.compuserve.com/homepages/bevhoward/BHTOP.HTM>.

Another brought me to a site with a utility that lets you call any DOS program or Software Carousel session with a hot key of your choice. See www.geocities.com/SiliconValley/Park/8287/exmbat.ch.html.

Mostly I kept coming back to www.palmtop.net trying to stay current with updates of palmtop software. Older versions of almost

all of the software in Super Software Carousel can be found on our 1998 CD InfoBase. However, to my surprise, much of it has been updated! In the Super Software Carousel discussion below, all the software with *Palmtop Paper ON DISK* icons is new or has been updated since December, 1997!

Super Software Carousel - is it necessary?

I saw this post on CompuServe by someone who had not examined Super Software Carousel: "you can save some money by getting the normal version of Software Carousel. The Super version seems to only add a bunch of shareware and freeware programs, most of which you can download from here or the Internet."

Super Software Carousel is not just a bunch of downloads put together on a disk. It is a tightly integrated, self-sufficient package of the best that the palmtop community has developed.

Personally, I've used most of the Super Software Carousel freeware and shareware before. However, I never had the time to really organize it, integrate it, find the minimum file space, and locate the latest versions — and at the same time make it all useable without resorting to storing tons of DOC files.

I think most people, simply don't have the time to get up to speed and use the tremendous amount of quality palmtop software available. Now with 8 and 32

Meg palmtops and less expensive flash cards, Super Software Carousel provides users the opportunity to utilize this software painlessly.

To this end, here are some highlights of Super Software Carousel:

1. Easy Installation

We offer free installation of Super Software Carousel, or you can install it from the Super Software Carousel CD. From the CD you simply copy over a few directories (to your palmtop A drive or C drive), run a batch file, and reboot. Super Software Carousel is designed to fit "over" an existing installation. So in most cases, there will be little editing of original system files even if you already use Software Carousel, EXM programs, or have another sophisticated setup.

2. Easy to Learn

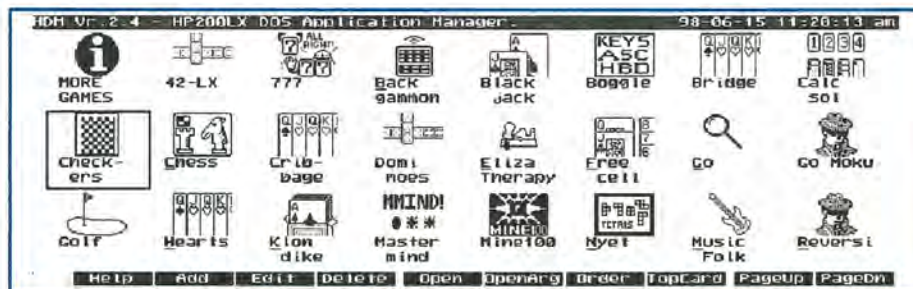
One of the greatest challenges was to put together over 40 pieces of independently written pieces of software, and have them easily accessible and intelligible without a steep learning curve. We make this set up easy to learn and easy to use:

a) By creating two main Software Carousel sessions — Applications and Games each with an HDM ■ (MORE-like) menu with unique icons for each app. CTRL 2 switches to applications, CTRL 3 to games.

b) By asking Harry Konstas to modify his HDM program. When a program launches there is now room for an optional 80-character



Super Software Carousel Applications screen



Super Software Carousel Games screen



Tip when launching backgammon

tip. So, for example, if a game requires some unintuitive keystroke combination or inverting the screen, the instruction is there as the program launches.

c) There is a hypertext help file available in each of the 2 sessions that gives additional information including how to access "hidden" included software such as BUDDY, ZOOM, and VCLOCK.

d) We selected software that could be used right away without extensive documentation. Some (PAL) programs come with familiar palmtop user interface. Some have plenty of built-in help. Others are just well-designed with an intuitive interface.

3. Highly Integrated

Products like HV, PE, VIEW, LXPIC, PKUNZIP, PCO, DGV

are linked to files they modify. So, for example, in FILER or STEREO SHELL, you can launch HV by highlighting an HTM file and pressing ENTER. There are many interconnections, so the system works together as a whole.

HDM, the DOS menu program, was further upgraded. Now the user can browse his list of files before launching the application. So, if a user started PKUNZIP from the Apps HDM menu, he can browse and select the file he wants to unzip.

4. Minimum File Size, Maximum Utility

The freeware and shareware included were chosen for maximum productivity taking a minimum of space. You can easily add or delete

programs to the HDM menus, or configure a new Software Carousel session. We only include the necessary files for each program.

5. More And Complete Goodies On CD

The Super Software Carousel CD comes with quite a bit of additional software that you can easily install into Super Software Carousel. Also, the CD contains the original archives for all software in both ZIPPED and UNZIPPED format. In this format each program's documentation is easily accessible.

6. The 3 Super Software Carousel sections:

a. CTRL 2 Applications section:

- Stereo Shell - DOS File Manager
- DBV - fast phone & database viewer
- GARLIC - fixes corrupt databases
- HV - HTML viewer
- LHA - archive/compression program
- LXPIC - views BMP, JPG, PCX, and GIF files
- TUNE - metronome and music tuner
- DRAW - Paint program
- PE - Editor, spell checker
- PC Outline - Outliner
- PKZIP, PKUNZIP - archive/compression programs
- Software Carousel CONFIG and MENU - Software Carousel utilities
- Typing Tutor
- VR - vertical reader for reading sideways
- ZIP - file transfer
- CLOSEFILER - utility that allows Filer to be closed
- BUDDY help - easy Buddy install/enable instructions
- WWW/LX help - easy WWW/LX demo install/enable instructions
- DOS - DOS prompt
- GAMES - launch 2nd games session
- MORE - launch 2nd System Manager session

b. CTRL 3 Games HDM session

- 42-LX, 777, Backgammon, Blackjack, Boggle, Bridge, Calc Sol, Checkers, Chess, Cribbage,

Dominoes ■, Eliza (palmtop psychotherapy), FreeCell ■, Go, GoMoku, Golf ■, Hearts, Klondike ■, Mastermind, Mine100, 3 Music medleys, 2 Tetris games, Qubic, Reversi, Sokabin, 10 Solitaire games, Tiles, Worm, Yahtzee ■, DOS - DOS prompt, APPS - launch 2nd applications session, MORE - launch 2nd System manager session

c. Other goodies:

FILER.INI - lets 200LX users launch applications from associated files
MOREEXM - Enables ZOOM and allows extra EXM sessions

ZOOM - Magnify-like product that zooms built-in screens

VCLOCK ■ - Large clock, timer

CLIPVUE - Cut and paste between different Software Carousel sessions
BUDDY - ready to install by removing a few REM statements

ANDREW3 ■ - more readable 100/200LX fonts

HDM ■ - DOS (MORE-like) menu program

Software Carousel 7

All Software Carousel users

wanting Super Software Carousel will need to do is upgrade since Software Carousel is included on the Super Software Carousel CD and the upgrade also enables several Super Software Carousel programs such as Chess to properly task switch. Some Software Carousel users may actually prefer their current version 6.8 through 6.92, although I prefer the upgrade. Versions from 6.8 through 6.92 contain mostly relatively minor bug fixes. 7.0 does fix a potentially serious problem of data loss for users that switch flash cards.

The upgrade feature receiving mixed reviews involves fixing what we have called "Filer bug". Most Software Carousel users have noticed that when switching to FILER from another session, the screen gets garbled. The workaround is to switch to another built-in application such as MORE or APPT and come back to FILER. If you don't know about the problem or workaround the bug can be disconcerting and eventually cause you to reboot.

The fix involves Software

Carousel 7 opening MORE whenever it returns to any application in System Manager. The problem with the fix (as of this writing) is that MORE (Application Manager) stays open (17K), it takes slightly longer to switch, and the MORE screen flashes. Also, this newer version in some cases reduces by 16K the maximum size for a DOS session. (Included is a utility that "unfixes" the fix, saving the 17K).

Software Carousel 7 comes with a completely rewritten manual by Palmtop Paper editor, Ed Keefe. It contains a quick, get up and running tutorial, and a reference session. Anyone who has worked with the original should appreciate this.

Products mentioned in this article

Software Carousel - \$79.95

Software Carousel Upgrades - \$19.95. (Requires proof of purchase - photocopy of manual cover or disk, or serial number from Software Carousel MENU program)

Super Software Carousel CD - (includes version 7.0 of Software Carousel. Cost: \$79.95 if upgrading from past version of Software Carousel, or \$139.95. Thaddeus Computing, 110 N. Court Fairfield, IA 52556 515-472-6330; Fax: 515-472-1879 email: orders@thaddeus.com www.thaddeus.com

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Those interested in participating in an HP Palmtop users group should contact the following individuals. Send us contact information formatted as below if you wish to be added as a contact for a users group in your area. Some of the individuals listed offer Palmtop advice but may not be organizing an official users group.

HP Palmtop Worldwide User Group News

Send material about User Group activities to Conrad Cox; E-mail: 76164.467@compuserve.com; Website: www.ccnnet.com/~cdcox

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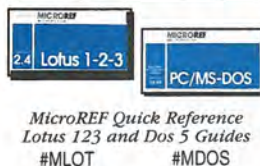
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WWW/LX Plus: My Most-Used Application

This suite of four integrated applications turns the Palmtop PC into a communications pro!

By Conrad Cox

I receive between 100 and 200 email messages a day from mailing lists, vendors, user group members and friends. I also require the use of several large address lists for user group mailings. I manage it all using various folders, files, and mail filters in my large, Windows 95 desktop-based email client. I had a separate desktop application for reading and replying to Internet Newsgroups. And while I did try a few email and News clients on the palmtop, none satisfied me.

If I could manage mail on my palmtop, I could take the mail with me. I resigned to the notion that no palmtop client would accomplish what I need. I was wrong.

When D&A Software recently released version 2 of their email client WWW/LX Plus, I decided to try it. I'm happy I did because I replaced my Windows application with something that runs very well on my palmtop. With it I can read and reply off-line to email and Internet Newsgroups, and surf the World Wide Web to boot!

What is WWW/LX Plus?

WWW/LX Plus is actually a

suite of four separate but integrated applications that easily run on a 2 megabyte 100LX or 200LX. Those users with double-speed and/or memory enhanced palmtops will retrieve local files a bit faster and store more messages. But whatever the palmtop configuration, WWW/LX Plus certainly fills the email bill for my needs.

The main WWW/LX Plus components are:

WWW.EXE acts as a "TCP/IP layer" that manages the connection to the ISP (Internet Service Provider) and the Internet. It comes with its own setup program and a dozen scripts which makes configuring WWW.EXE very easy. Custom scripts are easily fabricated.

POST.EXE is the email "client" that sends and receives email. POST.EXE is also responsible for the easy-to-use interface, which offers multiple folders, filters and much information about the status

of the mail and news. Best of all, once downloaded, Newsgroups and email messages can be read without being tied to a phone line or a desktop computer.

NEWS/LX is tightly integrated with POST/LX and works with POST/LX to send and receive Newsgroup articles to any Newsgroup available on your host server or servers. I won't mention News/LX very much because it operates in the background. But any work done to send or acquire Newsgroup articles is done by NEWS/LX.

HV.EXE is used in conjunction with WWW.EXE to view the World Wide Web on the palmtop. It has been upgraded to include HTML 3.0 specifications and supports FTP downloading.

Stefan Peichl's LXPIC is also included with WWW/LX Plus. The two programs work together like never before. More about this later.

ABOUT THE AUTHOR

Conrad Cox leads the San Francisco-based palmtop user's group called, The Society for Palmtop Advancement Through Meetings (SPAM). He contributes to *The HP Palmtop Paper* and *Mobilis Magazine*. You can contact him at cdcox@ccnet.com.

Test driving WWW/LX Plus

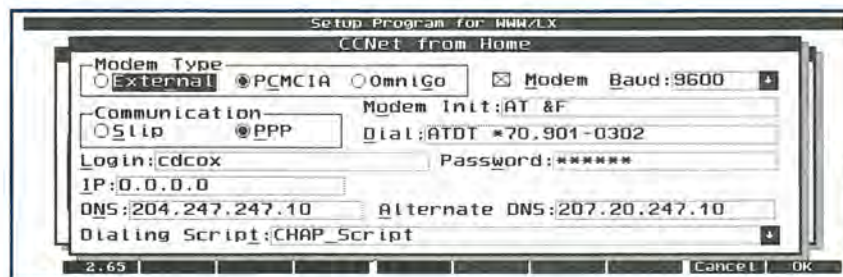
I downloaded the demonstration version of WWW/LX Plus from D&A Software's World Wide Web page (www.dasoft.com). The compressed file contains three more compressed files, one for each major component. (POST.EXE and NEWS.EXE share a compressed file.) I expanded the files onto my Palmtop's C: drive using PKUNZIP.EXE as instructed in the accompanying Readme file.

Using the fully functional demo is a great way to see the program and read the documentation. The demo allows only 16kb of data transfer before terminating the phone connection. I wish D&A would be a little more generous in the amount of data transfer allowed. I realize D&A must protect its property and interest. However, many people like myself cannot fully appreciate the functionality until 200 messages hit my In Box. It wasn't until I registered the product that I could really take it out for a test drive. Registration is a simple matter of providing D&A payment information. In return, the user receives simple registration instructions.

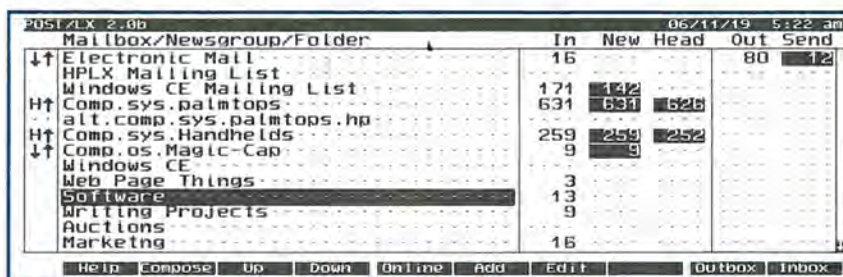
Since I wanted to test the email client first, I looked at POST.EXE and WWW.EXE first. Each has its own setup program (Screen 1).

Running the setup program WWWSETUP.EXE let me add WWW/LX Plus to the Application Manager (see Screen 1). The Setup program is pre-loaded with scripts and network information for seven popular Internet Service Providers (ISP) including CompuServe, AT&T Network, IBM Network USA, and Telecom XTRA. There are sample setups for SLIP, PPP and direct serial line connection.

My ISP supports PPP, so I highlighted that selection, pressed the + key, entered my ISP information and kept the default script. Information is saved in a WWW.CFG file. This file can be edited. References to drives and directories



Screen 1: Configuring WWW.EXE involves providing IP and DNS information (available from your Internet Service Provider) and selecting a script.



Screen 2: The Post/LX main screen: Everything the user needs to know about folders and mailbox can be found here.

may not correspond to your installation. But don't edit the password. That is encrypted to protect it from prying eyes.

POST.EXE's setup file let me define my mail and news servers, and the specific Newsgroups I like to visit. POST/LX version 1.0 users may convert their message files to this newer version, a nice feature. The setup program contains short but effective context-sensitive help for most functions, making setup fairly easy. I had to read the documentation to make sense of the mail filters. After some trial and error, all was well. (More about these filters in a bit.)

The POST/LX Application

The Post/LX user main screen (see Screen 2) contains much information about the mailboxes, the folders, and the messages they contain. It took me very little time to feel comfortable using the application. The first things I noticed were several similarities to another offline communications program I use for CompuServe — acCIS. The

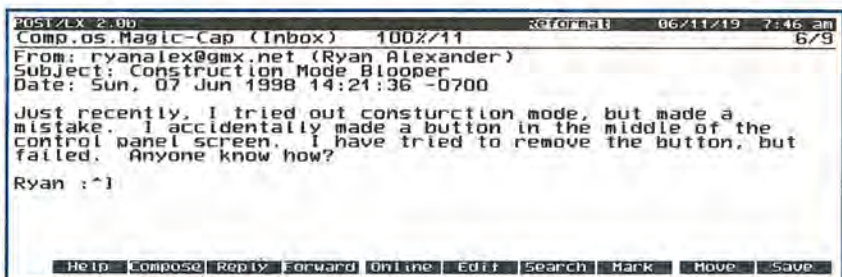
screen is divided into rows and columns. One column describes the name of each mailbox, Newsgroup or folder. The other columns show that mailbox's status.

Looking at Screen 2, you can see I've loaded several newsgroups and created several folders. The first row is my Electronic Mailbox. The first column of that row has an up arrow and a down arrow. The up arrow indicates that the next time I go online Post/LX will send any email messages I've prepared to be sent. The down arrow indicates I want to download any waiting messages on the host mail server. Post/LX lets me decide for each mailbox or news group whether I will upload, download, or do nothing.

I can also download message headers. Notice that an "H" can be seen in two Newsgroups. I find downloading only headers to be very handy when I want to review a Newsgroup I haven't visited in a while. After headers are downloaded, I review them and mark which ones I want to download the next time I am online. Downloading



Screen 3: The Post/LX In Box displays the email address, postmark date, and subject of each message in the In Box. The date can be toggled on and off.



Screen 4: The message reader lets the viewer see just what is needed. The user defines what headers will be seen.

headers saves time and disk space.

The right side of the screen shows me information about the number and types of messages in each area. Again referring to Screen 2, I have 171 messages in the Windows CE Mailing List folder, 142 of which have not been read. My Electronic Mail In Box contains 16 messages, while my Out Box contains a total of 80. The next time I go online I will send 12 messages. D&A Software designed Post/LX with the user in mind. Anytime there are new messages to read or be sent, the number is highlighted, telling the user there is something to do.

The program's most used functions are placed on the function keys. From anywhere, pressing F1 results in context sensitive help, enough help to answer most questions. F2 composes a new message. Rows can be relocated up or down in the list by using F3 and F4. F5 activates WWW/LX and takes the user online. F6 and F7 allow you to add or edit folders and newsgroups. And F9 and F10 open the user's In Box and Out Box respec-

tively. In addition to appearing on the function keys, most functions can be activated by one or two key combination, and by the main menu which is activated by the palmtop's menu key.

The Ins and Outs of the In Box and Out Box

The In Box and Out Box display, from left to right, the status, email address, postmark date, and subject of each message (see Screen 3). The date can be toggled on and off with a keystroke to create more room for the other columns. "Zooming" (Fn-Space) from medium to small font creates even more room. The status column tells the user a message is new (a small dot), is a header (H), and is to be downloaded (down arrow.)

I was surprised at the viewing option flexibility in the folders and in the In and Out Box. Pressing two keys displays a pop-up menu that lets you sort the list by the TO: and FROM: addresses, the date, or the subject. The message order can be reset to the original sort. The

Subject sort is smart enough to ignore the "Re:" that appears in the subject line of most replies. This groups messages with the same subject together for easier contextual reading.

From the In or Out Box, press the ENTER key to view the highlighted message. The message reader provides message information in a status bar at the top of the message. In Screen 4, the user is reading the In Box of the comp.os.magic-cap Newsgroup. The reader window can be "zoomed" to small, medium, and large fonts to maximize readability in many lighting situations.

One can just press the ENTER key to view a message. If the message is longer than one screen, press the ENTER key again. At the message end, pressing ENTER moves the user to the next message. Navigation is easy and intuitive.

Messages are by default automatically reformatted to fit the palmtop screen. This makes reading the messages easier using any font. If preferred, the formatting can be turned off to view messages in their "raw" state.

Message header information is suppressed by default; only the From, Subject, and Date headers appear (see Screen 4). Entries in the POST.CFG file determine which headers are displayed. If you want all the headers, you can get 'em. I prefer the sparse look.

Messages may be deleted from the screen individually by pressing the DELETE key. Deleted messages can be "undeleted" until the message file is "packed" Packing removes any deleted messages from a message file. By default, packing is done automatically whenever a file is closed. But automatic packing can be turned off as a protective measure against losing important information. One should occasionally pack the message files to conserve disk space and increase file-handling efficiency.

As one would expect, the user

may easily reply, forward, or edit the viewed message. Message creation can be done in most any text editor. For operating outside System Manager, I like PalEdit from D&A Software. It is free for the download and has a spelling checker option. Inside the System Manager I use the built-in application Memo. The documentation outlines the setup for both options.

Multiple address lists

Post/LX supports multiple address lists. This is one of the two most important reasons I tried WWW/LX Plus. I had six mailing lists made up of as many as 100 names and email addresses each. Because Post/LX's address lists are pure text files, I easily converted my old mailing lists to pure text files. They are now my address lists.

While viewing a message, the user can type the letter A. POST/LX will scan the message and all head-

ers looking for any possible addresses. The addresses are displayed one by one so that the user may verify whether to save the address in the address list. If more than one address list exists, one can be selected before adding the addresses. I love this feature!

When composing a message, the address books may be opened and addresses selected. They are pasted into the header of your choice. The address lists can also be used as a mailing list, sending the same message to everyone in the address list. A few weeks ago I used this feature to send more than 200 messages to a list of members in our user group. The process worked perfectly.

Templates save time

During the setup process I was able to create a template to be used whenever I write a message. It contains my default signature and the To: (or Newsgroup), the From: and

the Subject: headers. Does this mean I cannot send a blind copy or courtesy copy? No! While addressing the message, I can press F2 to add another header of my choice. I can also use F2 to add a stock block of text, an attachment, or an additional signature.

POST/LX's flexibility seems endless.

Going Online

POST/LX and WWW/LX work hand in hand to log onto your selected service provider. Once started, the online process is essentially outside the hands of the user. Just sit back and relax. Should there be any problem in retrieving or sending messages, Post/LX's main screen will tell you there has been an online error so you can correct the problem and start an online session once more.

Each online session places a session status message in the In Box



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for email and those Newsgroups visited. For email, the session notice says how many messages were on the server, how many were downloaded, and how many could not be downloaded. For Newsgroups, the message states the high message number, the number of news articles on the server, and the number of articles downloaded.

The user can decide whether to download binary files. Also, the maximum size of binary and non-binary downloads are controlled by the user via the Setup application.

By default, downloaded mail messages can be deleted from the server. The user may elect to keep messages on the server by setting a check box in the Setup application which will download messages but keep them on the host server.

Mail Filters

After my first message download, I had over 200 messages. Some mail was addressed to me from people asking palmtop related questions. Other messages were from the Windows CE Mailing List ranting about battery life. These represent an importance scale from "very" to "not at all."

Just like my Windows 95 mail client, POST/LX lets you create what it calls "mail filters." Essentially, mail filters can look at the header information of each email. It looks for pre-defined key words or phrases. If that phrase is found, POST/LX routes that message to another folder.

Referring to Screen 2, you can see I have a folder called "HPLX Mailing List" And another called "Windows CE Mailing List." These two lists have their own consistent signature. The HPLX mailing list always has "hplx, in its headers, and the Windows CE list always has "windowsce." Using this information, I set up equations telling POST/LX to move any messages with these signatures to their respective folders.

The benefits are many. First and foremost, using filters to remove mailing lists, marketing SPAM and other identifiable messages reduces the number of personal email messages. I can read and answer my personal mail without having to sift through other less important mail. It prioritizes my mail into organized subjects and easy to handle bites.

Other Folders

POST/LX allows the user to create and name folders for storing messages by subject. I created folders for Windows CE, for the 200LX, for writing projects, and more. When I receive an email that I want to save for later, I can move it into one of these folders for processing later.

For example, I always seem to run across interesting web addresses I'd like to explore. But reading mail on a commuter train doesn't allow me to start WWW/LX and surf the web. So I store mail containing those interesting URLs in a folder called Web Stuff. The next time I access the World Wide Web, I open that folder and try those interesting URLs.

Using folders saves time, saves ideas, and helps me to manage my electronic mail with "grace and ease."

POST/LX Overall Impressions

My first impression of the WWW/LX Plus electronic mail and Newsgroups clients was surprising. How can my little DOS palmtop accomplish all that it claims? After using POST/LX for over two months I am amazed. For me and many other professionals, electronic mail is the "killer app" that must work flawlessly day in and day out. It must be flexible and customizable. POST/LX is all that, and it fits into my pocket!

The documentation for POST/LX is somewhat unusual. The help screens are the documentation. Shipped with WWW/LX Plus is an application that when run creates either a traditional text file or an

HTML file. I like having these options. Once you try HTML documentation, you will not want to go back to reading a simple text file.

Do You Really Need a Web Browser on Your Palmtop?

Well, do you? Before you answer, take a few minutes to consider:

- Most information on the World Wide Web is text.
- It takes a laptop computer minutes to boot and longer to access the World Wide Web.
- Many say they would use the web more as a resource if it were easy to quickly get in and out.

Do those statements sound familiar? For myself, there have been times I'd like to quickly check a URL mentioned in a magazine or email. But it takes too long to power up the Pentium.

My answer? Find a telephone, connect a cable from it to my palmtop, and go! This is the freedom I have found using WWW/LX Plus's World Wide Web client, WWW/LX. It lets me get into a site, get the information I need, and get back to work.

Do I "surf" the web with WWW/LX? Not often, although I have in hotel rooms while traveling. I also find it convenient to access my company's intranet when I need some corporate information.

As with POST/LX, WWW/LX relies on WWW.EXE for its connection to the Internet. Once connected, the browser opens and information gathering begins.

The HTML viewer used in WWW/LX is HV.EXE. It interprets and "paints" World Wide Web documents on the Palmtop screen. The program was first seen and reviewed in *The HP Palmtop Paper* back in October, 1996. Since then the program has been upgraded to support HTML 3.0 specifications. GIF images can be viewed inline, surrounded by text, while JPEG images are supported via an external program, LXPIC.

After working with LXPIC author Stefan Peichl, D&A now ships WWW/LX Plus with LXPIC. Before this upgrade, I usually kept image viewing off to help speed downloads and viewing. Using LXPIC with HV seems to have sped up the processing of GIF files, and I now tend to leave images turned on. Image display may be toggled on and off by the user.

HV supports FTP connections directly. D&A offer other "helper" applications on their web site without charge. I use their Telnet client to log on to my ISP shell account. WWW/LX also supports on line forms.

HV is equipped with online help simply by pressing F1.

HV Setup

Before starting WWW.EXE, edit the WWW.CFG file. In it there is reference to HV.EXE. Make sure the drive and path of this entry matches your installation. If not, correct it. Also run WWWSETUP.EXE to set up your Internet provider information if you haven't already done so.

Next, edit the HV.CFG file. The file is heavily annotated in D&A style, meaning there are thorough explanations for all entries. Of particular importance is the entry for HV's "root" directory and the entry for the home page. The Root directory should be the directory in which HV resides.

The Home Page you select will be the page that is displayed when HV first starts. Home Page can be a local file on the palmtop or a file on the World Wide Web. I have created a local Home Page that acts as my jumping off point. It contains many of my most frequented sites on the web. I can easily point to the site I want to visit and press RETURN to move there.

Using HV.EXE

Execute the WWW.EXE program. After WWW.EXE makes a connection, HV will start. I was

very surprised at how quickly HV downloads and displays most web sites. Most sites can be viewed well. This is especially true if the sites are text rich.

HV.EXE places the most used HV functions on the function keys. Help is always available by pressing F1. F2 will return the browser to the Home Page as designated in HV.CFG. Press F3 to edit the HTML document currently on the screen. To find something in the current HTML document, press F4. F5 opens the Hot List, essentially a list of frequently visited sites, like Netscape's Bookmarks. F6 is the Back button, as is the escape key. F8 provides information about the current document. F9 opens a new HTML document and F10 saves the current document onto the palmtop.

Although HV supports the viewing of frames, turning them on places table text into small cells. The cells must be selected individually to be seen. But doing so hides the rest of the document. Not very helpful in my view. I like to keep the frames turned off.

I find myself using HV.EXE more than I ever thought I would. It is very handy to have while traveling and simple to set up and use. I highly recommend it.

Memory Requirements for WWW/LX Plus

To load the entire WWW/LX Plus suite, plan on giving up about 500kb of storage space. Plan on using a bit more storage space for mail messages and folders. One megabyte users should consider loading modules, as they are needed. Just WWW.EXE and POST.EXE require almost 200kb total, even less without the setup programs.

I have had good luck running POST.EXE from within System Manager. I have a lot of TSRs installed so I cannot successfully go online. For me it is really no fuss to leave the System Manager to start the online process.

The Verdict

WWW/LX Plus is the most used application on my palmtop. Period! I especially like POST/LX. Because of it, I have stopped using my desktop machine altogether for email. Now I can carry my correspondence with me. Whenever I have a spare moment or two, I open the email client and do some work.

D&A Software provides good technical support through the CompuServe HPHAND forum, via email, and by telephone in emergencies. Their web site offers an often updated frequently asked questions (FAQ) file for review.

I strongly recommend WWW/-LX Plus. It provides an excellent communication suite for the HP 100LX-200LX platform.

Commercial products mentioned in this article

WWW/LX Plus — available now for purchase from D&A Software. Cost: US\$ 89.00 (\$30.00 to upgrade from a previous version)
Web: www.dasoft.com

Also available directly from:
Thaddeus Computing
110 N. Court, Fairfield, IA 52556
515 472 6330 fax: 515 472 1879
email: orders@thaddeus.com
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Email Just Got Easier (and FREE!) with palmtop.com

Use the built-in cc:Mail application to send and receive email - free of charge!

By Allen Solof and Bill Childers

Thanks to Martin Paul, the owner of palmtop.com, anyone with an HP 100/200LX can send and receive email messages from the built-in cc:Mail application, free of charge. cc:Mail requires a special post office that acts as a gateway for your email, and this is the function of palmtop.com. Recently Mr. Paul generously extended this service for free to all HP palmtop PC users. (Also, there is an extended feature service available for a small one-time charge. See sidebar for details.)

There is one caveat: unless you live in the Sunnyvale, CA vicinity where 408 is a local call, you'll have to bear a long distance charge to dial the number. The good news is that the total connect time is brief because downloading and uploading messages occurs automatically and immediately as soon as you connect, and the transfer speed is fast (cc:Mail uses a binary format compared to conventional email's ASCII format). Also the simplicity and convenience this service affords may outweigh the few dollars per month you'll spend on calls, especially for mobile users. Another advantage is the savings in disk space. Since you are using a built-in application you only need enough

memory to store the messages that you create and the ones you may want to save. A 100LX/200LX with 1 MB of internal RAM can use this system effectively.

The HP 100/200LX User's Guide explains clearly how to access the features of cc:Mail, including an address book and sending/receiving attachments. All you really need to get started are the instructions to set up your account. These are posted at the Espmail web page at www.palmtop.com. Espmail is the company that offers the palmtop.com connection.

Setting up palmtop.com

The setup instructions include a screen of the 100/200LX settings fields in cc:Mail and you'll see exactly where to enter the necessary information. For those of you without access to the Internet, follow these instructions:

1. Open cc:Mail (from MORE or ALT+1-2-3) and choose MENU | Connect | Settings
2. Enter these parameters:
Host: palmtop.com
Prefix: palmtop.com
Post Office: espmail
User Name: your name
Password: your password
Baud: 9600

Interface: COM1 or COM2
(COM1 for external modem,
COM2 for PCMCIA)
Flow Control: Hardware
Modem File: d:_dat\hayes.mdm
Modem Volume: Medium
Phone Number: 1-408-541-1979
Dial Mode: Tone
Dial Timeout: 60
Idle Timeout: 5
Manual Dial: No
Max. Msg. Size: 0

3. Press Enter to Update the settings.

4. Press F4 to Create a new message and type the name POSTMASTER in the TO: field. In the SUBJECT: field, type PALMTOP TRIAL. In the body of the message, include your name, company, mail address, and telephone number. Also include your choice for your Internet address in the following format: alias@palmtop.com where alias is your choice with no spaces. Spaces can be replaced with a dot, dash or underscore.

5. Press F-5 to store the message for sending.

6. Connect your modem and press F-10 (Connect), the palmtop.com host should be selected and press Alt+C to Connect.

When you connect you will only

Additional palmtop.com services

By Martin Paul

(Owner of palmtop.com)

The palmtop.com service has been and will continue to be offered free of charge. Those users who signed up for paid accounts have not been charged since early 1997 because we had only a few dozen users and never set up a billing system. However, many users have expressed willingness and even a desire to pay for the service, and recently there has been a surge in new subscribers.

We would like to offer enhancements to the service on a basis similar to the shareware principle used by software vendors. You may continue to use the service free of charge, but you may also get additional support and services if you contribute a one-time payment of \$60 for a permanent subscription. These additional services include POP3 access to your palmtop.com mailbox, allowing you to use one of any popular POP3 programs on a PC, MAC, Windows CE or PalmPilot device from your local ISP's connection. Other support options include domain name service, multiple email addresses and multiple mailbox destinations. We will also offer removal of oversized messages on request (we will automatically remove messages of 500k or more over 15 days old), and password change or clear on request.

If you would like to contribute to palmtop.com and receive additional support and services, please send a check for \$60 to:

Martin Paul
c/o ESP Networks
536 Weddell Dr., Suite 1
Sunnyvale, CA 94089
Phone: 408-744-9141

be able to send your message. The next time you connect you will receive an automated message from Martin Paul welcoming you aboard. This message also explains the format for addressing messages to others on the Internet.

palmtop.com tips

- Increase speed: After your initial successful connection you can increase the baud rate, depending on the speed of your modem. For example, a Simple Technology 28.8 modem easily connected at 19200.

- Create custom configuration file: The brand of modem you are

using may require a special setup string to enable it to work properly with cc:Mail. In such a case you will need to create a custom modem configuration file. For example, the Megahertz XJ3144 modem needs a special setup string (this is mentioned in the Megahertz manual). The file D:_DAT\Hayes.mdm is found on your HP 100/200LX. Open it in Memo or another text editor and immediately save it under another name (i.e., C:_DAT\Xj3144.mdm). Then make the changes to the copy by adding a special SETUP string on the line preceding the two SETUP lines that

are already in the file. For the XJ3144 the new file would look like this with the added line shown first:

```
SETUP=AT&F&C1&D2&S1&MWS95=0  
SETUP=ATS0=0Q0X4  
SETUP=ATS7=60S10=50
```

Save the file (in ASCII). Now change the parameter in the Settings of cc:Mail (MENU | Connect | Settings | ALT+F) to the path and name of your new file. Choose ALT+U to Update the Settings. (Note: You can get a list of hundreds of setup strings by modem make & model for cc:Mail at: [ftp://ftp.support.lotus.com/pub/comm/ccmail/modems/modems.zip](http://ftp.support.lotus.com/pub/comm/ccmail/modems/modems.zip).)

- Using a calling card: You can enter the calling card number sequence in the Phone Number setting, typing commas (which tell the modem to pause in its dialing sequence) or other required symbols, at the necessary places in your dialing sequence. You may need to experiment to get the proper timing. Also you may need to increase the Dial Timeout setting to accommodate the longer dialing time.

- Manual dialing a calling card: You can manually dial a calling card sequence and then have the 100/200LX begin the email operations. You need to change the Manual Dial setting to Yes. When you are ready to place the call, press F10 (Connect) and the 100/200LX will reset the modem and prepare for the connection. You will then see a screen prompting you to dial the number. Dial all the necessary numbers in your sequence and as soon as you hear the call ringing, press Enter on the 100/200LX. If you wait until you hear the carrier tone from the server and then press Enter, the palmtop has trouble connecting.

Users appreciate palmtop.com

Many people are enjoying palmtop.com. One such person is Bill Childers, who describes his experience with using palmtop.com to

harness the potential of the cc:Mail application.

"I use cc:Mail to read email as well as newsgroup messages on the road. I can do this by filtering and forwarding all my mail from my main POP email account to palmtop.com, using UNIX commands, and then reading it in cc:Mail on my HP 200LX. This is basically how it works: my main email address is a shell account (an account offered by many Internet Service Providers that offers access through UNIX commands), childers@garlic.com. My cc:Mail address is childers@palmtop.com, with a "reply-to" address of childers@garlic.com. So all my incoming mail and newsgroup messages arrive at my main email account. Automatically the UNIX mail processing utility called Procmail filters this shell account at garlic.com and forwards all the messages I have specified to palmtop.com. Procmail can sort incoming mail according to sender, subject line, length of message, keywords, etc. Please see the Procmail FAQ at www.ling.helsinki.fi/~reriksso/procmail/mini-faq.html for more details about this. The initial setup was challenging to figure out, but fun!

One caveat if you try this type of setup: make sure your filtering scripts are well tested before you actually run them. I used up a good portion of my ISP's bandwidth by accidentally having

a bounced email run back and forth from my mailbox to the sender. Good thing I'm a backup system administrator for them! But since my system has been up and running smoothly, I have enjoyed having the ability to read all my email and newsgroup messages in the palm of my hand, wherever I am. If any HP Palmtop Paper readers have a UNIX shell account and would like to try this, feel free to email me if you have any questions. Also, there are excellent sources on the Web that explain Procmail and other mail filtering techniques."

Another satisfied palmtop.com user is Tom Jones, who writes:

"First off, your service is a godsend. Using the built-in cc:Mail application for email is ideal in so many ways:

1. Setup is a breeze, especially compared to the various POP mail solutions available for the 100/200LX.
2. It doesn't eat up 500-1000 Kb of disk space, always an important issue, even with 5 & 6 MB expanded palmtops.
3. The interface of the cc:Mail is so easy to use.
4. Uses less than 120 Kb of system RAM, so there is no need to exit the System Manager or use MAXDOS.

In short, THANK YOU! Your service is exactly what I've been looking for. I've owned lots of different PDAs and tested/investigated many others. I came back to the HP 200LX because nothing else really compared in terms of out-of-the-box functionality, mostly due to the built-in applications, standard expansion & communications, and portability. The only thing that was missing was good (i.e., inexpensive and easy to use) Internet email software. Now I feel that I have a no compromise PDA solution.

So far, I'm very pleased and I'm looking forward to enjoying your service for as long as I own an HP 200LX, which should be a long time (I just bought a spare unit in case this one goes bad).

term could be developed normally, then when all is well, multiplied by zero to inhibit the display of the variables used in that term.

The output date format is M.DDYYYY with the calculator set to FIX 6 mode. This format is suitable for plotting Easter over, say, a 100-year interval. Try XMIN = 1900, XMAX = 2000, YMIN = 3.20 (20th of March), YMAX = 4.30 (30th of April), and RES = 100. The date of Easter Day varies from March 22nd to April 25th. The latter date is also ANZAC Day, a public holiday of remembrance in Australia and New Zealand, recognizing the sacrifice of soldiers at Gallipoli during the First World War.

The Solver equation (Easter.eqn ■) for the date of Easter Day is:

```
Sunday = 0 * L(Y,IP(Year))
+ 0 * L(G,MOD(G(Y),19)
+1)+ 0 * L(C,IP(G(Y)/100)
+1)+ 0 * L(X,IP(3*G(C)/4
-12))+ 0 * L(Z,IP((8*G(C)
+5)/25)-5)+ 0 * L(D,IP(5
*G(Y)/4)-G(X)-10)+ 0
* L(E,MOD(11*G(G)
+20+G(Z)-G(X),30))+ 0
* L(E1,IF(G(E)<0,G(E)
+30,G(E)))+ 0
* L(E2,IF(G(E1)=24,G(E1)
+1,IF(G(E1)=25,
IF(G(G)>11,G(E1)
+1,G(E1)),G(E1))))
+ 0 * L(N,44-G(E2))+ 0
* L(N1,IF(G(N)<21,G(N)
+30,G(N)))+ 0 * L(N2,7
+G(N1)-MOD(G(D)
+G(N1),7))+ 1
* L(N3,IF(G(N2)>31,4
+(G(N2)-31)/100,3
+G(N2)/100)+G(Y)/1E6)
```

Neil Redmond
n.r@clear.net.nz

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HTML browser to view Web down-loads.

PE (PalEdit)

A MEMO-like editor with many enhancements including spellchecker.

VR (Vertical Reader)

Lets you read doc files and electronic books, vertically on the palmtop.

DBV (DataBase Viewer)

Fast phone, appt and database file viewer.

View

Lets you view files from a variety of word processing formats.

Tune

Metronome and musical tuner.

ZIP

Fast PC to palmtop serial transfer program.

Draw

Palmtop drawing/paint program.

PC Outline

Enter thoughts, plans, ideas, and organize them into a hierarchical structure.

Stereo Shell

DOS File Manager.

garlic

Fixes corrupt database files.

PKZIP

File archiver/compressor.

LHA

File archiver/compressor.

LXPIC

Lets you view GIF, JPG, BMP, PLX graphics files.

Andrew3

More readable palmtop font.

CloseFlr

Close Filer to save memory.

Buddy

Zillion utilities in one.

fastdb

Speeds up database programs (e.g. Phone).

MoreEXM

Breaks system limitation of 7 EXM files. Enable software like ZOOM.

Typing Tutor

Type faster on the palmtop.

Zoom

Wonderful Magnify-like program that enlarges and makes more readable any section of the screen in built-in apps. For example, can blow-up datacard for more readable phone numbers.

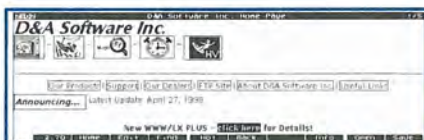
Subst

DOS 5 utility superior to ASSIGN.

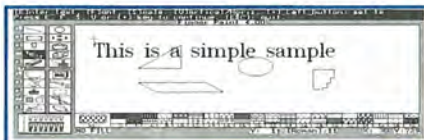
Vclock

Whole screen clock and timer.

Here's a brief preview of what SUPER Software Carousel does for your palmtop!



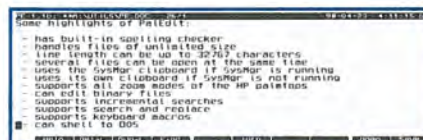
Use HV and LXPIC to view web documents graphics.



Paint, Flowcharts and maps with Draw



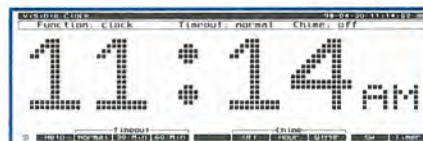
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Yahtzee

42 LX

Cribbage

Tiles (Mah Jongh)

Klondike

Golf

Blackjack

Bridge

Hearts

Backgammon

Checkers

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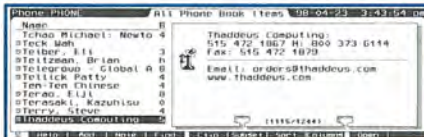
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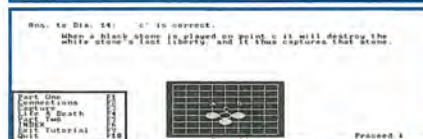
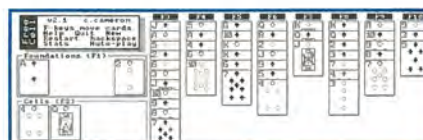
Includes the complete version of Software Carousel, plus lots of additional software. Runs on HP 100LX, 200LX, or 1000CX on flash disk or in system RAM (C drive). Full package requires 5 meg: a little over 2 meg for applications, 2 meg for games, and 1 meg for Software Carousel sessions. Even more applications than listed are included on CD.



Zoom blows up any phone book, appointment book, or database item. Above is a before and after view.



Here's how Backgammon, FreeCell, Chess, and a Go tutorial look on the palmtop. Other games include Tetris, Checkers, a music selection, and a palmtop therapist.



Apps

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Games!

Through the Looking Glass: Running a College Department on a Palmtop PC

In and out of the classroom, this professor keeps track of students, classes, and the rest of his life with the HP Palmtop PC.

By Ed Keefe

It Seems Like Only Yesterday...

Actually, the year was 1983. It was the era of the HP-41 and HP-75 handhelds. The IBM-PC was a year old. PC-DOS 2.0 had just been released and the HP 110 portable was one of the first laptops to hit the market.

For me, it was the end of one career and the start of a new one. For 12 years I had been a member of the support staff and part-time math, logic, and programming instructor at the local community college in Ankeny, Iowa, near Des Moines.

The college had just acquired 24 IBM-PCs and suddenly realized they needed a full-time person to develop and teach PC courses. I applied for the position and lugged my 9-pound HP laptop to the job interview. During the two-hour interview the laptop got most of the attention: I got the job. (It's hard to imagine, but only one of the five computer teachers who interviewed me that day had ever seen an electronic spreadsheet.)

The rugged HP 110 became my main teaching tool. I developed course outlines with its built-in MemoWriter and tracked student progress with Lotus 1-2-3. I installed Turbo Pascal and BASIC

to test programming projects. HP-IL cards and cords let me transfer data between the HP 110 and one of the computers in the lab. I even took the laptop into the classroom and forced it to display text on a 25" black and white TV monitor. I thought I was the only kid on the block with such a neat toy. It was fun but also kind of lonely.

Through the Looking Glass

In 1985, a letter from a new publishing company in Fairfield, Iowa convinced me I was not alone. The letter invited me to become a charter-subscriber to The HP Portable Paper, a newsletter for HP 110 users. I replied "thanks, but no thanks: I already know enough about the HP 110." Hal Goldstein, the publisher, countered with an invitation to write a column for the newsletter. I accepted and chose "Through the Looking Glass" as a tongue-in-cheek title for the col-

umn. It reminded me that every time I looked at the shiny screen of the HP 110, it was like going through a mirror into a different world. Little did I realize that "TLG" would become one of the longest running columns in the computer-publishing business. I had no idea that it was also the start of a long-term friendship with Hal and Rita Goldstein, the publishers of TPP.

A New Position and a Palmtop

It seems like only yesterday that the era of the HP 110 and the HP Portable Plus came to an end. Actually, it was 1991. It was the year to end one career and start another.

Perhaps because the Portable Plus made me appear more organized than I was, I was handed a real challenge. One of the college's five campuses had just announced an evening curriculum in Computer Science. My assignment was to



ABOUT THE AUTHOR

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bring the campus up to speed and get all the PC courses up and running. The downside was that there was no money in the budget for an office computer: there never was for the first five years.

About the same time, HP announced the HP 95LX, a palmtop organizer with Lotus 1-2-3. Hal Goldstein called and offered to lend me one of these tiny machines to see if I'd continue writing the "Through the Looking Glass" column for *The HP Palmtop Paper*. I replied "thanks, but no thanks: I'd go blind looking at a small screen and probably suffer writer's cramp from typing on a tiny keyboard." Hal sent me the palmtop anyway. I soon realized that the HP 95LX could do everything the HP Portable did and more! I massaged my Lotus 1-2-3 grade book to fit the smaller screen of the HP 95LX, transferred my class notes from MemoWriter to Memo, started playing with System Manager macros, and got Turbo Pascal working on this tiny platform. Then I discovered HP Calc and Solver. I was hooked. HP Calc helped with budget analysis and Solver practically made "lease vs. buy" decisions for us. Within a month I began referring to the Palmtop as my "plastic brain."

In my spare time I used the HP 95LX to write articles for *The HP Palmtop Paper*, create a Game Pack and a utility program called Multi-Macro Manager. The 95LX also served as the test platform for the first few Subscribers Powerdisks.

A New Palmtop

It seems like only yesterday (actually it was 1993) that Hal called again to tell me he was sending me an HP 100LX palmtop to try out. My response was "thanks, but no thanks: I'd definitely go blind from squinting at the small characters on the screen." Hal sent the 100LX anyway and within a week I was hooked again. Here was a real

PC that could fit in a pocket. It used MS-DOS 5.0 and could run almost any DOS program that worked on a PC/XT. System Manager was a quantum leap beyond the version in the HP 95LX. Solver was still on board as was Lotus 1-2-3 and these two number crunching programs were tied together. The Phone Book and Appointment Book were better than anything I'd seen on a desktop. There was even a customizable database program that soon became the repository for almost everything I knew about computing. It was great to have accurate information in the palm of my hand rather than to try keeping it all in my head.

The HP 100LX went with me wherever I went. It was at my side when I debugged students' programs. I could look at computer code that worked before I got lost in a maze of code that didn't work. The Palmtop was on the table at department meetings where it served as a note-taker and time-keeper. Whenever there was a question about the date and time of a college event, the 100LX always had the last word. It could easily remember what mere mortals were prone to forget.

The Palmtops Met the Challenge...

For the first five years, I relied solely on the HP 95LX, the HP 100LX and the HP 200LX as my "office computer." Together we grew a department that went from 24 IBM PS/2 model 25s and one instructor, to 120 Pentium PC's, a Novell network, two full-time and ten part-time instructors serving more than 300 students a semester.

So how did the Palmtops do all that?

Let Me Count the Ways...

Appointments and ToDo's: The Appointment Book has been the most frequently used application on my Palmtop. Every semester begins with me entering repeating appointments for each of the five courses that I teach. Every class has an alarm that plays Reveille 15 minutes before the class meets. It reminds me to stop schmoozing with staff and students and get back to work.

Like most users, I saw my Appointment Book and ToDo list grow to alarming proportions along with an ever-increasing guilt-complex for not doing what I "should" have done. Those undone ToDo's kept nagging at me until I relegated

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them to a NoteTaker file that I called MORETODO.NDB. I guess some ToDo's really aren't worth doing. Some of the items in that file go back to 1993! When I occasionally look at that NoteTaker file, I feel mild regret but no more guilt! I'm also pleased that the Appointment Book is a lot faster than it used to be, even if I am not.

After each class, especially if I introduce something new, I use the Appointment Book's note field to remind myself what went right and, what "needs more work." (That's educationese for "what got messed up.") This semester, the note fields are full of what needs more work: namely MS Visual C++ 5.0. With all it's buttons, tool bars and menus, the screen is way too "busy" for beginners. I still prefer Borland C++ 2.0 on the Palmtop. Sure, BC2.0 can't handle <templates> nor can it throw and catch exceptions, but then neither can most novice programmers. However, I can see more computer code on the screen of my Palmtop than I can in the editing window of Visual C++.

When ToDo's get done, I check them off. At the end of the year, I retrieve them all and use Smart Clip to export them to a database where they get sorted, categorized and printed just in time for my annual performance review. There's nothing like putting ten pages of "accomplishments" in a personnel folder. No one will ever read those pages, but the folder sure makes an impressive thud when it hits the desk.

Lotus 1-2-3: Nowadays the world runs on Windows and the most popular spreadsheet is Excel. I still rely on the Palmtop's Lotus 1-2-3 to keep accurate, up-to-date records of all my students. My automated gradebook has never failed me in more than seven years. If a student wants to know what his or her current grade is, I can show them a complete record of their progress in less than 15 seconds. Try beating that time using Excel on

Notes in Repeating Appointments

The Palmtop's Appointment Book is great at reminding us how to spend our time. It's also useful as a "diary" reminding us how we spent our time. After each appointment, it only takes a few moments to press the F3 (Note) key, type in a couple of lines about what happened and press the F10 (OK) key to return to the Appointments screen. However, with repeating appointments, be careful: the "Repeating Item Edit" box will let you post your note for "One occurrence" or for "All occurrences in the Range". If you hit the "A" key by mistake and then press (OK) or Enter, you'll post your note all over the place. If the note says something like "this class was a disaster", it can be very disconcerting to see that message every time you open the Note field. The fix is simple: just edit the word "disaster" to "winner" and save the note to All occurrences.

The Palmtop As a Scheduling Tool

Inquiring minds might want to know how I used the Appointment Book and 1-2-3 to do room scheduling. If so, I refer you to the Quick Tips article in this issue. Therein you'll see how to use the Smart Clips feature in the Appointment Book along with the Data Parsing and Data Sorting capabilities of 1-2-3 to manipulate dates, times and locations. This is the tastiest thing to come out of an otherwise tasteless episode in my career. I'm trying hard to forget the "political side" of the battle over who got which computer lab at what time.

BC++ 2.0 on a 32 Meg. Double Speed Palmtop

For me, one of the benefits of a double speed Palmtop with 32 Megabytes of RAM, is that I can now create programs using the full Integrated Development Environment (IDE) that comes with Borland's C++ version 2.0. The IDE has its own editor and allows me to open context-sensitive help at the touch of a key. It also let's me execute a program one instruction at a time and set watches on a program's variables.

I tried using the IDE prior to the doublespeed upgrade but decided that it was an exercise in frustration. It was way too slow. With the upgrade, the performance of the IDE is more than acceptable. As a test, I compiled and linked a project consisting of a dozen files of C++ code and countless header files on an HP 100LX with 1 Megabyte of RAM. With the IDE and C++ files on a flash card, the process took over 7 minutes. On the upgraded 200LX, with the IDE and C++ files installed on the faster C:\ drive, the whole process took two and a half minutes.

I've compiled and linked a test program that simulates an elevator system in an office building (12 files in all) in under a minute; all from within the Integrated Development Environment of Borland C++ 2.0. I'd tried doing this a couple of years ago, but the time it took for the IDE to get out of the way and for the compiler and linker to run was excessive. I learned to use MAKE along with the command line versions of BC and LINK. Even there, compile and link times were nothing to rave about. Now with the double speed upgrade, the development times are as good as anything you might get on a 286 computer. I just wish that the Palmtop could be upgraded to a 486 or Pentium. That would let me use BC 3.1 which is larger but faster and closer to the new ANSI standards.

a desktop computer!

Room scheduling: The five computer labs on campus are no longer the private turf of the Computer Science department. Students and instructors in Accounting, Office Management, English, Math, Nursing, and Biology also need to use them.

We could have had an even worse turf-war if it weren't for Lotus 1-2-3. It did yeoman's duty as a room scheduler. I used the spreadsheet along with several Appointment Book files to resolve conflicts and keep the quarrel mob at bay. How my Palmtop and I did this is truly a war story. I may write about it someday after the battle wounds have healed.

Phonebook: I often hear of people whose Phonebooks have 500 or more entries. That always impresses me! My Phonebook is puny by comparison: only about 100 entries. There used to be more entries when I kept track of all the people who called looking for part-time work. The number of want-to-be instructors has dropped drastically in the past year as the number of computer-related jobs has dramatically increased. If you know of anyone looking for a part-time computer science teaching job in Des Moines, IA, have them send me email. If nothing else, you'll help me get more use from my PhoneBook.

Database and NoteTaker: My primary use for the Palmtop's database has been a repository of information about such topics as DOS, Windows, C++, and Assembler. I also have Database and NoteTaker files packed full of such things as course outlines, syllabi, course competencies, and all the esoteric commands to access the college's mainframe database. With this information at my fingertips, I can answer a question such as "When do you teach object oriented technology?" quickly and correctly. Just in case you're wondering, we introduce OOP in the tenth week of Data 310

and the first week of Data 318, and we cover OO Analysis and Design in the third and following weeks of Data 382.

Memo, et al.: Every instructor knows that no course is complete without a dozen or more handouts. And I'll admit that my extensive handouts have decimated a forest or two, but I blame it all on the various editors and word processors I have in my Palmtop. It's just too darned easy to use Memo, VDE, Qedit, or PalEdit to key in a few ideas that probably should have been forgotten. Such "notes" tend to grow to full-fledged documents, migrate to a desktop computer for formatting and printing and from there wind their way to the publication center where they devour another tree. Eventually those notes wind up in students' hands. Sometimes they even get inside a student's head.

HP Calc and Solver: It was more

than 40 years ago that IBM created the first "high-level" computer language, Fortran. This "formula translating" language let scientists and engineers use a computer to get accurate solutions to their math problems. Today HP Solver does the same thing but for a fraction of the cost and effort. For me, Solver has served as a quick way to check if the math parts of a C++ or COBOL program are producing accurate results. I've often wished that Solver could translate its code to C++. That would have made some programming tasks almost too easy, and definitely a lot more fun.

Programming: It comes as a surprise to some people that the HP Palmtop has seven built-in programming languages: DOS batch language, Debug, System Macros, Doskey macros, Lotus macros, Solver equations and the database subset language (SSL). However, for a programming instructor that's

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not enough. Over the years I've used the HP Palmtops to develop programs in Pascal, Assembler, C/C++, Forth, BASIC, APL, COBOL, Lisp, Logo, Scheme, TIPI, and LXBatch. It's the only computer that will let me crash and recover in under half a minute. I suspect that the most frequently used keys on my Palmtop are Ctrl-Shift-On. The "school-of-hard-crashes" has taught me the value of backups. Yet, for more than seven years and thousands of crashes, I've never had to use any of those backups to restore the Palmtop.

The Quest for a Presentation Program: For the past 7 years, I've searched far and wide for the perfect presentation program for the Palmtop. What I want is an outliner that can collapse and expand topics at the touch of a key. The program must work as efficiently as Gilles Kohl's Vertical Reader. It must be able to use fonts as LARGE as those in the shareware "20-20" editor and it must run on the Palmtop. So far, the combination of Andreas Garzotto's Hypertext Viewer and PalEdit come close. Hot-links to other parts of an HTML document can emulate collapsing and expanding an outline, but the fonts need to be larger than HV ■ can currently handle.

Take A College Course on the Road

And, speaking of HV, here's another valuable use of the Palmtop: take a college course on the road.

In the past couple of years, I've enrolled in a couple of courses offered on the World Wide Web. The great thing about such courses is that the texts are available in HTML format. As long as the texts don't use Java scripts they can be read on the Palmtop. Better yet, they can go on vacation with you. If a meal spent talking business is called a "power lunch", could a vacation with a Palmtop be called a "power trip"?

These are a few of my favorite things...

Utility Programs: When I'm at home, the Palmtop is connected to my HP desktop. I can tap a few keys on the desktop's keyboard and run HP Calc or call up a database on the Palmtop. The program that lets me do this is Craig Payne's REMKEY.

Eric Meyer's ZIP program handles all my file transfers and backups and Software Carousel lets me swap System Manager for one of three DOS sessions on the Palmtop. For example, when developing an LXBatch program, I can use one DOS session for writing the program with PalEdit, another session for testing the code, a third DOS session for looking at LXBatch's help file, and the System Manager session to check if the program will run under Filer and/or App Manager.

Other utility programs that make computing easier include Toddy ■, a better version of the Doskey macro program, Jinifont ■, which makes the Palmtop a lot more readable, and Stereo Shell ■, a fancier version of Filer that works well in DOS.

And In My Spare Time...

The Palmtop Paper: During the past seven years, my time away from the classroom, has been busy with writing more than 40 articles and a book, *PC In Your Pocket*, for Thaddeus Computing. My summers have been filled with less of a classload but more of a challenge, collecting, testing and documenting software for a half a dozen Subscribers Powerdisks.

A New Use for the ToDo List: Let me count the days!

The End of a Career

After seven years of working four days a week, often from 10AM to 10PM, eating two meals a day from brown paper bags, fighting seven "budget battles", and winning two, I was beginning to show signs of wear and tear. It was at this point

that the college's board of directors made several of us "old-timers" an offer of early retirement. The buy-out package was unequalled in the field of higher education. All of us are addicted to teaching and will probably suffer severe withdrawal pains. Nonetheless we all took the offer. My last college class will be on August 13, 1998.

My Palmtop's ToDo list now has a new entry. As of this writing it looks like this: "15 +100 days left" The "15" is in the priority field so that I can decrease it with each passing day. If I forget to highlight the priority field and press the minus key, I can use the Date application in HP Calc to calculate the exact number of days remaining.

The Start of a New Career

Just this past week Hal Goldstein called again. He wanted to send me a double speed HP 200LX with 32 Megs of memory. My initial response was "thanks, but no thanks: I won't need all that extra memory when I retire from teaching." His reply was "oh yes you will. I want you to edit *The HP Palmtop Paper*." My immediate reply was "Sure!" (How could I turn down 32 Megs of memory?). So, on August 14, 1998, I'll come out of retirement and start a new career.

I'm looking forward to the challenge. It will let me continue to share my enthusiasm for the HP Palmtop and all the neat things we've done and still can do with it.

Until next time, Happy Porting.

Work Hard, Play Hard — with My HP Palmtop

Whether he's test driving sports cars, or roaring through a European Road Rally, this engineer stays in tune and in touch with his HP Palmtop.

By Gottfried Burckhardt

My computer life began while being at the university in Stuttgart when I bought my first computer, a Sinclair ZX80. This was followed by the Sinclair Spectrum, then a short affair with the powerful but non-mobile ATARI ST1040, and then the Toshiba T1000 (the first affordable laptop computer). I discovered very early on that one of the things I needed most in a computer was transportability. I upgraded my laptops and notebooks very frequently. Every new system was better than the system before, but there was always a big gap between reality and my desires.

Then Hewlett-Packard introduced the 95LX, followed shortly by its 100LX. I was impressed with the latter, but still did not see the advantage of such a small and high-priced CGA computer. Fortunately, a good friend of mine (Steffen Demuth) took the time to show me the capabilities of his 100LX. I decided to wait until the HP 200LX was launched before I finally purchased my first HP palmtop, a German-language version of the newly available 2MB HP 200LX — my "Palmi".

A "brain assistant"

Over the years Palmi has taken on the role of an assistant for my brain by keeping records of impor-

tant information, organizing appointments and, most importantly, helping me stay in touch with the world. My typical work day includes routine work, meetings with customers, test driving all kinds of cars, maintenance work on the office computers, writing reports, supervising the workshop, dealing with suppliers, and more. I keep Palmi with me wherever I go, in my trouser pocket, ready to pull out when I need answers fast. And if I have some time free, I read my e-mail and tag the messages I want to reply to.

Pumping up Palmi's performance

When Palmi came into my life he was a standard 2 MB 200LX. It took me about two weeks to realize that Palmi's usefulness was limited by the bulky external modem I used and by the limited file storage space on C: drive. I managed to run an old version of CIM (a CompuServe access program), but I needed more.

I had almost decided that the 200LX was a nice little gadget, but

not as useful as expected. Then I discovered that EXP had just introduced their 8 MB modem/memory combo card. Some bucks later I was online with my new card. What a difference! Palmi was transformed into a power machine. No more memory problems and no more need for that bulky external modem.

Unfortunately, the 8 MB of memory on the EXP card did not last long, and I was one of the first in Germany to opt for the internal 5 MB and double-speed upgrade on my Palmtop (more on this later). The extra memory didn't last long, and again, I upgraded to 8 MB of internal memory and a 20 MB SanDisk ATA Flash card. To this I added an IODATA 20 MB modem/memory combo card (normally available only in Japan) and a TransDigital parallel port card. Finally I had a platform that ran all the software I wanted to run, without those countless card swaps. What exactly did I run?



ABOUT THE AUTHOR

Gottfried Burckhardt was born in Stuttgart, the capital of the "Wild South" of Germany and well known as the home of Mercedes-Benz and Porsche. He works as engineer in the R&D center of a leading sports car manufacturer and is involved with vehicle validation and testing. He is a regular participant at HP Palmtop user meetings around Germany and on CompuServe's HPHAND forum.

My most important "blue-key"

The tasks I have to accomplish on a day-to-day basis require the capabilities of one built-in application above all others — Lotus 1-2-3. For example, frequently I have to calculate the fuel consumption of a test car dependent on the wear on the tires. I've used Lotus to create a spreadsheet containing all the formulas needed to do this. All I have to do is enter the data and the spreadsheet gives me the results automatically. Every time I enter a new record into that spreadsheet I have to set the corresponding date for that entry. Fortunately, Lotus 1-2-3's macro capability lets me automate that, also. (Take a look at the Lotus macro I use for this in the sidebar below.)

Lotus macros speed date and data entry

To make the process of using the spreadsheet that calculates fuel consumption, I have created the following Lotus macro, which enters the current date every time the spreadsheet is started.

```
\0
{let b3:@today}
loop {blank key}~
{get key}~
{if key="{UP}"}{let b3;b3+1}~
{if key="{DOWN}"}{let b3;b3-1}~
{if key="{PGUP}"}{let b3;b3+7}~
{if key="{PGDN}"}{let b3;b3-7}~
{if key="{RIGHT}"}{quit}~
{branch loop}
```

Every time the spreadsheet is started the macro writes the actual date (according to the 200LX's system clock) into cell b3. The rest of the macro routine adds the capability of altering the date easily with a few more keystrokes.

F16: (F2) [B8]

Global Einfügen Löschen Spalte Radieren Titel Fenster Param N.Seite Makros

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13.01.98	200154	356	22.24	36.01	19.50	6.25	
25.01.98	200487	333	25.66	39.75		7.71	
29.01.98	200850	363	24.34	39.65	14.70	6.71	
04.02.98	201215	365	27.06	43.70		7.41	
09.02.98	201607	392	27.46	45.01	22.60	7.01	
13.02.98	201995	388	26.85	44.01		6.92	
17.02.98	202363	368	28.38	46.80		7.71	

KITTEN.HKI

Screen 1: The IMPRESS add-on to Lotus 1-2-3, V 2.2 adds a number of useful features to Lotus. Note the very different look of the spreadsheet when using IMPRESS.

Unfortunately, some of my spreadsheets have grown so large that the built-in version of Lotus, with its limitations on file size, could no longer load them. That problem, and the fact that I sometimes missed the ability to print out a graph from within a spreadsheet, prompted me to figure out a way to expand Palmi's capabilities once more. My solution was to run a full copy of Lotus 1-2-3 version 2.2 on my 200LX, along with a Lotus add-on named IMPRESS. I accomplished this using another 200LX program called Software Carousel.

Twelve Palmtops in one!

Software Carousel is a task-switching program designed for DOS-based computers and optimized for the HP Palmtop. It lets you open up to twelve different "sessions" and quickly swap between them. For example, you could have Appointment Book, Phone-Book and Note Taker open in one session, a large DOS program open in another, etc. You press a hotkey to switch between sessions. Software Carousel is palmtop aware, and will switch between sessions automatically, if needed (i.e., if an Appointment Book alarm goes off in another session). You can even run multiple copies of the same program in different sessions (i.e., keep two different phonebooks or databases open at the same time).

I used Software Carousel to open a separate DOS session (with 563,000 bytes available system RAM) and attempted to run a full copy of Lotus

1-2-3 version 2.4. I had enough memory in the DOS session to run the full version of 1-2-3, but the WYSIWYG module that comes with version 2.4 doesn't work on the CGA screen of the Palmtop — bad news! I skipped using the full version of Lotus V2.4 and complained to anyone who would listen.

Then I remembered the good old days when I used Lotus 1-2-3 version 2.2 with an add-on called IMPRESS. This outstanding piece of software added a number of useful features to Lotus, including the ability to print graphs from within a spreadsheet, change complete cell ranges in one go, change the style of any cell separately, add a grid to your worksheet, alter the cell height in a row, and change the size of the characters within any cell. A couple of days and several system crashes later I was up and running with V2.2. (Note: Palmi crashed several times, needing cold reboots as a result of some compatibility issues between IMPRESS V.1 and all Lotus versions higher than V2.2, including the cropped internal V2.4.)

Note: IMPRESS (originally sold by a company named Aleph2) is an add-on for Lotus 1-2-3, up to version 2.2 (the last 1-2-3-release NOT supporting EMS). It was so popular that Lotus bought the company and took over the development of IMPRESS. Only version 1 of IMPRESS supports CGA displays like that of the Palmtop (see Screen 1). If you want to run a full version of 1-2-3 on your Palmtop, look for old copies of Lotus V. 2.2 and IMPRESS 1.

My interface with the world

The computer that keeps me in touch with the world has to be ultra-mobile. "Here today, gone tomorrow" is part of my life. My Palmi, acCIS4 (a CompuServe access for the HP Palmtop) and my mobile phone are with me all the time and let me connect easily to CompuServe (and the world) wherever I am. True, my desktop and notebook computers have more computing power, bigger hard discs and nicer displays, but when it comes to portability and usefulness on the road, guess which device I prefer?

Part of Palmi's ultra-mobility comes from my Sagem RD435S mobile phone (brand name is Sago). This is a GSM mobile phone with a built-in data card. (Other phones with this feature have been announced, but are not yet available.) The 200LX connects to the mobile phone via the serial port. The only special thing you need to connect the phone to the palmtop is a suitable adapter to make the phone's standard 9-pin serial connector fit into the 10-pin serial port of the HP. The serial cable of the connectivity pack with the null modem adapter attached will do that job, but it's a bit bulky. I used a handmade adapter given to me by Thomas Rundel.

Back in November 1997 I competed in the historic RAC Rallye, part of the European Rally Championship for cars made before 1966 (see Screen 2). This is a very competitive stage rally through the forests and parks in Great Britain. It's part of my job as a navigator to partly drive the car on the way to the rally and back home, so I drove half the time during the 800 km ride to England.

When I wasn't driving I had plenty of time to answer my email and read messages on the CompuServe forums. It worked this way. Just before passing the German border I connected my mobile phone to the serial port of my palmtop, start-



Screen 2: Palmi, Bernhard Pfältzer and I were part of the RAC Rallye in England. Bernhard was the driver, I was the navigator and Palmi kept us in touch with the world.

```
acCIS 4.0 . 24.02.98 20:53
[82X/17 ♦ WFM HPHAND_M InBox 8/185]
#: 402970 513/HPHAND Fireside [HPHAND_M] 27-Nov-1997 20:39:20
Sb: #Palmi's ultimate mup?
Fm: Linda Worthington 74452,105
To: Gottfried Burckhardt 101525,3644

Oh, Gottfried. I am so sorry to hear about poor Palmi! It is
like losing a friend for us too...and you must be in mourning!
Has he been washed in distilled water? I hear that sometimes
that helps...

With that crowd in the pond, it's just fortunate no one was
really hurt!!

Palmella sends her sincere condolence!

2.65 Compose Reply Forward Online Edit Search Mark Move Save
```

Screen 3: I use acCIS to quickly download my CompuServe email. I read it offline in acCIS and press F3 if I want to compose a reply. Next time I connect up to CompuServe, acCIS automatically sends the message.

ed acCIS and hit F5 to start an acCIS macro. acCIS made all needed configuration adjustments (e.g., setting port speed, dialing the number of the German D2 CIS node, a special "cheap" CIS number provided for users of the German "D2-Netz") and a connection was established. A little over three minutes later, after retrieving all email and messages, the connection was automatically terminated. Off line, I read the email and messages, and composed replies (see Screen 3). About 400 km later, on board a ferry while entering the port of Harrogate, GB, I reconnected and sent my replies.

The fact that the mobile phone connects to the serial port and not through a PC card is important to me. It means that I don't have to swap out my memory card while using the mobile phone. Setting up the palmtop for the phone was

easy. From Filer's Communications menu I opened Remote Settings and changed the Baud rate to 9600 and the Interface (port number) to COM1. For more information on the RD435S mobile phone and its successor, the RD750S, including some pictures of it, go to Thomas Rundel's home page (www.run.deld.com). Thomas was the second person to use the RS435S with the HP Palmtop, but without his help in getting the adapter welded, I wouldn't be the first.

I have to report some bad news for U.S. palmtop users. GSM mobile phones are used all over Europe, but not much on the other side of the pond. The frequencies used are incompatible with the American phone system.

[Note: There are a few areas in the U.S. that have GSM capability, including the Washington D.C. area, and this

is increasing. Check with your cellular phone provider.]

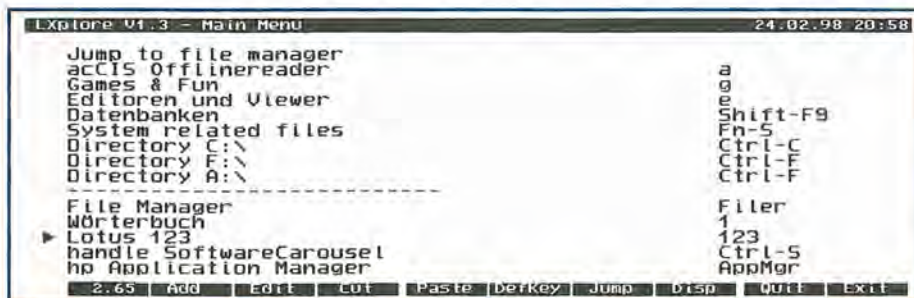
Other hardware and software enhancements

Earlier I mentioned double speed and internal memory upgrades for the palmtop. I never managed to measure the actual speed increase of the double speed upgrade. The 70% speed increase claimed by the developer is probably a realistic estimate, but it feels like a Pentium compared to a 386 system. I now switch quickly between Software Carousel sessions and open large databases in seconds. And when I recalculate one of my huge spreadsheets, I no longer have the time to go for a coffee.

I also like the internal memory upgrade. As I've mentioned, I have Software Carousel on my palmtop. It uses a large, permanent swap file that must be on the C: drive. I also have extended memory on my palmtop, which uses at least a 1/2 MB swap file. In addition, online programs such as acCIS and WWW/LX run faster when they store incoming files and messages on the C: drive. Finally, I have a lot of software drivers that I need on the C: drive. With all this, I need 8 MB of internal memory as a minimum.

I store data files and other programs on a PC memory card. You can also use a PC memory card as a quick and easy way to backup your C: drive (it takes about one minute to back up an 8 MB C: drive). One thing about computer memory - however much you get, you quickly find you need more. When you go shopping for a PC memory card, buy the biggest one you can afford.

If you go online with your palmtop you'll need a PC modem card (or a portable external modem). The unfortunate thing about a modem card is that it uses the same slot as your memory card, requiring that you swap cards. The solution to this problem is a modem/memory combo card. My first combo card



LXPLOR: The little brother of Microsoft's Explorer ported to the palmtop: LXPLOR ■, another very handy tool to keep your programs and files organized. Combines Filer and Application Manager.



Welcome screen for changing and automatically setting up newly swapped PC cards using my Swap.bat ■.

was the 8 MB EXP card. Today I use an IODATA combo card with 20 MB of memory. The EXP card is primarily a modem and needs an additional driver installed on the palmtop to access the onboard memory. The IODATA card is primarily a flash memory card with a modem onboard. Plug it into your palmtop and you can immediately access the memory without an additional driver. However, you do need to install a driver to use the modem part of the card. I automate the installation of this driver with a batch file. When I hit the send button in acCIS4 (F5), it automatically loads the driver and then removes it when I'm finished. As a result my palmtop's batteries last significantly longer. Normally I get two days use out of them (approximately 8 hours use including 4 or 5 online runs). I still have to swap cards occasionally, but my IODATA combo card takes care of my needs 95% of the time.

There are a lot of devices that connect to a computer via a parallel port. A printer is the most obvious, but you also have CD ROM drives, external hard disks, ZIP drives and

more. The palmtop doesn't have a parallel port, but you can add one with a parallel port PC card adapter. As far as I know there are two cards on the market for the HP 100/200LX. One is the Trans PC Card from TransDigital, the other is the SPP100 from Quatech. I tried them both and found that they offer similar capabilities.

My main interest was in enhancing connectivity. I succeeded in connecting my palmtop to my desktop PC via parallel port for fast file transfer. I did a complete backup of Palmi's C: drive (5.2 MB of files) to my notebook (using the MS-DOS INTERLNK/INTERSR utilities) in 3 minutes, 42 seconds. That's a 29.9 Kb transfer rate. I did the same backup to a battery powered external hard disk (23.4 Kb) and a ZIP drive (27.3 Kb). I achieved the fastest file transfer rate with my RAPCD (a CD ROM drive with a special RISC processor to get the most out of any parallel port connection by measuring the transfer rate and adjusting to the optimum speed) at 92 Kb.

Note: One important thing to

mention: There are some external drives available which need at least a 386 processor. These drives don't work on the HP. Be sure to explicitly ask about that before buying new hardware.

Many applications are now shipped on CD ROM, but as far as I know almost none of them will run on the palmtop. Still, some very useful shareware/freeware libraries are available on CD ROM. And don't forget that *The HP Palmtop Paper CD InfoBase* comes on CD ROM. Unfortunately, it uses a desktop PC search engine to access its information, but you could use the palmtop's Filer to explore the shareware and freeware on the InfoBase. Maybe Hal Goldstein can be convinced to implement a DOS reader into the next issue of the famous *The HP Palmtop Paper's CD InfoBase*.

The death and resurrection of Palmi

As I mentioned earlier, I took Palmi on the RAC road rally. Bernhard Pfältzer was the driver, I was the navigator, and Palmi was my extended brain. At one point we were in third place, desperately trying to catch Adrian Kermode in second. In a very fast and slippery downhill section Bernhard lost control of our Porsche. We slid a few hundred meters over a wet meadow and into the pond of Woburn Abbey. The pond was also occupied by Adrian's Porsche and a Ford soon joined us. Fortunately, nobody was hurt — except Palmi.

All of my other equipment, including my SanDisk and IODA-TA cards and my mobile phone were back to life after carefully drying them. But Palmi didn't recover. It seemed the end of a good friendship, but then another friend gave me the main internal board (with CPU, RAM and ROM memory) of an English language palmtop. Palmi had been a German palmtop and the only problem I faced was getting the English main board to

Connecting the Palmtop to an External File Storage Device

It's easy...if you know how to do it!

As I mentioned in the article, I connected a number of file storage devices to my HP palmtop using a parallel port adapter card. How easy was it? Well, once I figured out how to do it, it was easy! But the figuring out took a little time.

Below is a description of how to connect and configure a ZIP drive to the palmtop using the Trans PC parallel port card.

1. From the installation floppy of the ZIP drive copy GUEST.EXE, GUEST.INI, NIBBLE.ILM and ASPIPPM1.SYS to your palmtop (all files should be copied into a location which is in your path statement in AUTOEXEC.BAT).

2. Edit GUEST.INI and delete everything but the following line. (Check the line carefully to make sure it's exactly like the following line. Edit if necessary.)
ASPI=ASPIPPM1.SYS /INFO FILE=byte.ILM SPEED= 9.

3. Connect the ZIP drive to your parallel port.

4. Run CIC program to activate the Trans PC parallel port.

5. Run GUEST.EXE and voila, you should be able to access the ZIP drive's additional 100MB of file storage space from your palmtop.

If the ZIP drive doesn't appear in Filer, check the LASTDRIVE=<x> line in your CONFIG.SYS drive. This line limits the number of drives that will appear in Filer (i.e., "lastdrive=f" will only allow six drives to appear, drive A:, B:, C:, D:, E:, and F:). Substitute a higher drive letter to allocate more drives.

"speak German." What I mean is that Palmi had a German keyboard and I wanted to be able to access the German characters that don't appear in English.

Fortunately, the ROM of any HP 100/200LX has all you need in the form of a program called Keylist (KEY200.COM). I activated Keylist by adding the following command to my AUTOEXEC.BAT file.

```
D:\BIN\KEY200 KEY200.LST.05
```

Keylist uses a data file to tell it what to do. I wrote a keylist data file with the following content:

```
F n a : u ^u ^F n a F n o : u ^u  
^F n o F n u : u ^u ^F n u y : z ^z ^y  
z : y ^y ^z
```

With these changes I had the German umlauts in the usual position (e.g. pressing Fn-o displays the German umlaut) and the z and y keys were swapped. I didn't implement all of the German keyboard characters. I don't use them that often and am too lazy to take the time to implement them in Keylist.

Palmi retires in favor of Big Albert

I recently retired Palmi, in favor of "Big Albert" (my new 200LX with 32 MB of internal RAM memory). All of my peripherals and PC Cards work flawlessly with my 32 MB palmtop. I'm still trying out Big Albert's enhanced capabilities, but he can do some unbelievable things.

For example, I have this really big Phone Book file (16339 entries with complete addresses). I've exported it to a comma delimited text file and use a beta test program named LXFF to search this file quickly for names and addresses. The exported Phone Book text file is 4 MB and I carry a 5 MB dictionary program with me. I could keep these files on a PC memory card, but they run much faster on the internal RAM memory.

No other handheld beats the memory/size factor of Big Albert. I love its instant on access to 32 MB of data and the fast, low power consuming RAM. It gives me all the power you need — long live Big Albert!

• • • BASIC TIPS • • •

By Ed Keefe

Appointment Book

A Warning About Using Smart Clip In The Appointment Book

In the Phone Book, Database, NoteTaker and WorldTime applications you can access the Smart Clip feature simply by pressing the [F5] (Clip) key.

You can use the Smart Clip feature in Appointment Book to create, for example, a text file with a list of your appointments and notes. However, you don't access Smart Clip by pressing [F5]. That is the Goto button in Appointment Book. From this application, access Smart Clip from the pull-down menu.

The Smart Clip, in Appointment Book already contains two default Smart Clips: "All Fields, with Notes" and "All fields, No Notes".

The buttons at the bottom of the dialog box will let you Rename the default Smart Clips, but there's really no reason to do this. The Delete button will tell you that you can't delete the default Smart Clips. However the Edit button will let you modify the definition of a default Smart Clip, and at worst the whole computer will lock up and require a hard reset with the CTRL+LeftShift+On keys (answer No to the prompt). This is known in the computer business as a "GOTCHA!" so be forewarned.

Upon reflection, this may be a "gotcha" on some Palmtops and not on others. If you want to test this out on your Palmtop, please create a dummy Appointment Book file that can be wasted. Don't use your master Appointment Book as an experimental tool.

I doubt that HP will ever "fix" this "bug". The best advice is don't try editing the default Smart Clips: define a new one instead.

How To Create Appointment Book Smart Clips

As mentioned, Appointment Book comes with two default Smart Clips (All Fields, with or without Notes). But you might want to create a text file with a list of your appointments by date and time only. Since you can't modify the existing Smart Clips, you need to create new ones from scratch. Here's how you do it.

Open the Appointment Book and press [F9] (Appt) to get to the Appointments screen.

Press [Menu] Options and select Smart Clips... to access the Smart Clip dialog box.

Press the [Tab] key to highlight the Define... button and press Enter (or press the [F2] or ALT+D keys) to open the Define Smart Clip screen.

Press [F2] (Field) to select a field that you want to "clip".

A list of fields will appear. Use the arrow keys to highlight the desired field.

If you want to set the column width for the clipped field, press the [Tab] key and type in the width, e.g. 10, and then press the [Tab] key and use the up and down arrow keys to justify the field as "Left", "Center", "Right".

When you're finished defining the field, press the [F10] (OK) key to lock it. For example, if you highlight "Location" as the first field, and select a width of 10 spaces, you'll see the word >Location< in the first row of the screen.

You can modify this entry. Just press the left arrow key to highlight the field name and then press the [F4] (Edit) key. If the field name is not highlighted, you'll hear a beep.

If you want to have the output from each appointment appear as a single line (as you would if you want to import the output to a Lotus spreadsheet) then press the [Tab] or Space keys to add spaces between the fields. Don't press the Enter key or your output will appear on more than one line.

Continue to select, and format, the fields you want. For example, to prepare output for my Room Scheduling spreadsheet, I chose >Location< >Start Date< >Start Time< >End Time< >Description< >Note<

All these field names appear in the first row of the screen.

When the Smart Clip is defined, press F10 (OK) and type in an appropriate name for the Clip, e.g., Room Sched and press Enter.

To use the Smart Clip that you defined, see the next two tips.

How To Use Smart Clips To Print To A File

Once you have a Smart Clip defined,

you can use it to create an output file that may be loaded into an editor such as Memo or even into 1-2-3. Here's how to do this.

In the Appointment Book, press the [Menu] key and select File. Then select Print from the pull-down menu.

In the Print dialog box, use the down arrow key to select "These Items" and press the [Tab] key to highlight the selector field. Use the up or down arrow keys until the word "Appointments" appears. Then press the [Tab] key and enter a starting date and an ending date for which you want to print the appointments.

Press [Tab] to get to the Style group box and use the arrow key to select Custom. Press Tab again and use the down arrow key to select the Smart Clip you defined, e.g., Room Sched.

Press [Tab] to access the "Print to" group box and use the right arrow key to select File.

Leave the Title empty and be sure the "Include today's date" is NOT checked.

Press F10 (OK) and type in the name of the file, e.g., C:\RM214.PRN (using the .PRN extension will make it easier to import the file into Lotus 1-2-3). Be careful: if you have another file by the same name, it will be overwritten without any warning.

Press the [OK] or Enter key and the file will be created.

You can now press the Filer key; point at the RM214.PRN file and press [F8] (View) to see what you've created.

Since you now have a file on your disk, you can load this file into a DOS application, such as dBASE or WordPerfect 5.1. You can also import the file into the built-in applications such as 1-2-3 and Memo.

Using Smart Clip To Cut And Paste Between Appointment Book And Other Applications

The previous tip told you how to create a file containing several appointments. But suppose all you want to do is copy one or two appointments from your current Appointment Book to Memo or Lotus 1-2-3. You don't have to go through all the hassle of creating a file and saving the information on disk. Here are two different techniques you

can use to get the job done.

Simply highlight the appointment (or ToDo item) you want to copy and press the [Fn][=] (Copy) key. Then start the target application (e.g. Memo or 1-2-3) and press the [Fn][+] (Paste) key. This will put several lines of text in Memo or 1-2-3. You can then edit the lines to your liking.

If you have defined a Smart Clip for the Appointment Book, just highlight the item you want to copy and then press [Menu] O S, highlight the desired Smart Clip, e.g. Room Sched, and press Enter. Now switch to the target application and press [Fn][+] (Paste) and you'll see a copy of the information in the format defined within Smart Clip.

You may find that you prefer this approach to copying and pasting rather than creating a file and importing it into another application. The downside is that you can paste the information only into the built-in applications. You can't paste them into the VDE or Qedit editors for example.

If you find yourself performing this operation repeatedly, consider recording a System Macro and assigning it to a function key. You'll save countless keystrokes in the long run.

Copy Note To Appt Todo List With "Smart Clip"

The previous tips describe how to get information from the Appointment Book to another application. But suppose you want to get information from another application such as NoteTaker or PhoneBook and paste it into the Appointment or ToDo application. For example, I have a NoteTaker file called MORE2DO.NDB that contains information about projects that have been put on the "back burner". Occasionally I want to move one or more of these items to my ToDo list. There are two ways to accomplish this.

To copy a single record from NoteTaker to a ToDo record, open the Appointment application and switch to the ToDo view. Then press [F2](Add) and [F3](Note). Then switch to the NoteTaker file; highlight the item you want to copy, press [Fn][=](Copy). Switch back to the ToDo Note and press [Fn][+] (Paste). Press Ctrl+Fn+LeftArrow (Home) to get to the top of the note and highlight the first line. Press [Fn][=](Copy). Now press [OK] and [Fn][+](Paste) to put the first line of

the note in the Description field of the ToDo record. Press [OK] to return to the ToDo List screen.

The second technique lets you copy several NoteTaker records at once and paste them in a ToDo note field. Just start NoteTaker; highlight the items you want to copy and press the Space Bar to "tag" the items. Then press [F5](Clip); select a Smart Clip from the list and press [OK]. Now switch to the target application and press [Fn][+](Paste). If you're going to paste the information into a database, you'll have to paste into the note field.

Although I've referred to NoteTaker as the "source" application, the same technique will work equally well with any of the other database applications such as Phone Book, World Time, or Database.

Use Calendar To Move Around In Appointment

When you are in Appointment Book's Daily display, you can press PG UP (Shift+UpArrow) and PG DN (Shift+DownArrow) to move to the next or previous day. If you have to go many days forwards or backwards, try this technique.

Press F6 to enter the Calendar display. Use the Arrow Keys to position the cursor on the day you want to jump to and press Enter to switch back to the Daily display.

Lotus 1-2-3

Unhiding Columns Temporarily

Suppose you've used the Lotus command [Menu] Worksheet Column Hide to make one or more columns of a spreadsheet disappear from the screen. Now you want to "unhide" them temporarily.

Don't reach for the [Menu] key. Instead position the cell cursor to a column adjacent to the hidden column(s) and press the [+] key. A '+' sign will appear on the command/data entry line.

Then use the right or left arrow keys until you see the information in the hidden column(s).

There will be an asterisk next to the column letters indicating that the columns are still hidden.

You can now use the up and down arrow keys to move around the hidden cells.

When you've finished reviewing the contents, just press the ESC key a couple of times to return the worksheet to its original status. Of course, to modify the contents of any of the hidden cells, you'll need to use the [Menu] Worksheet Columns Unhide command.

HP-Calc

Loans With Additional Payments

Some lending agencies will let you make additional payments to a loan; others seem to reject this practice. But suppose your bank will let you "pay down" the balance of a loan during its life.

Imagine that you've borrowed \$50,000 for 5 years at 15% APR and you've agreed to make monthly payments.

In the 19th month you receive a windfall of \$10,000 dollars. You decide to pay down the balance of the loan by \$10,000 at the end of the 20th month. You wonder how much money you'll save in interest.

One way to picture this is to imagine that you have two loans: the first runs for 20 periods and the second keeps the same interest and payments but, since the principal value is less, the number of periods would be fewer than if you had one loan.

To see how much you'd save, start HP Calc and press Ctrl T (or use [menu] Application TVM) to start the Time Value of Money application.

Set the following variables:

N = 60.00

I%YR = 1.25

PV = 50,000.00

P/YR = 1

B/E = END

Solve for PMT = -1,189.50

Note that we use 1 Payment per Period rather than the usual 12 payments per year for this type of problem. We also use 1.25% (i.e. 15%/12) since we're dealing with the payments on a month-by-month basis.

To compute the accumulated interest and balance at the end of the 19th month, press the Amort [F2] key. Then press the Go [F2] key 19 times until you see Group 19 in the upper left corner of the screen. Press BAL [F6] and press N (Store) 0 to see Reg0(M) = 37,977.96. Press the Accum key [F8] and then press

N (Store) followed by 2. You should see Reg2 = -10,578.46 on the screen.

Now press [F2] repeatedly until you see Group 60 in the upper left of the screen. Press [F8] and N 1 to store the accumulated interest in Reg1 (= -21,369.63).

Now press ESC to return to the TVM screen. Press M 0 to recall 37,977.96 and subtract 10,000 from this and press F8 (PV) to enter this amount as the principal value for a new loan. Press N [F6] to compute N=28.03. But, since you can't use a fractional period, change N to 28 and then press [F10] to find that you'll have a balloon payment of -30.86 at the end of the new loan.

Once again, press [F2] (Amort) to switch to the amortization screen and press [F2] (Go) 28 times. Press [F8] (ACCUM) to see ACCUM=-5,358.81 and then press N 3 to store this in Reg3.

Finally press ESC twice to leave the TVM application. Use the calculator to compute the difference in accumulated interest. Press the M 2 and M 3 keys to recall Reg2 and Reg3 and add the values to get -15,937.27. Use M 1 to recall Reg1 and subtract this from the last result to get a difference of 5,432.36. Subtract the balloon payment of 30.86 to get a final result of 5,401.50.

At this point you wonder if you would have made more money by investing the \$10,000 in a mutual fund for 40 months, but that's a problem left for the interested tipster.

Filer

Using Help In Filer

Most people know that pressing the [F1] function key, in Filer, opens a Help screen. Unlike "context-sensitive" help screens, the HP Palmtops use a combination of hypertext and function keys to access the help you want.

On the Palmtops, hypertext appears as words surrounded with boxed borders. When you press an arrow key or the Tab or Shift+Tab keys, a highlight hops from one hypertext word to another. If you press the [Enter] key you'll get more help on the highlighted word.

You may also navigate through the Help screens with function keys. For example, in Filer, when you press the [F1] function key twice, you'll get an

Index of all Filer's features. The screen is almost entirely hypertext. Press the arrow keys to skip from one word or phrase to another. When you press the Enter key, the text will change to help on a specific topic.

The [F8] function key will return you to the previous screen. Either the [F9] function key or the [ESC] key will "Cancel" the Help function entirely. You can use the [F6] and [F7] function keys, or the PageUp or PageDown keys, to move through the help screens that are longer than a single screen.

Let's try this out.

Go to Filer and press the [F1] function key twice to open the Index screen.

Press the [Tab] key repeatedly until the word "Filter" is highlighted. Then press the [Enter] key. The "Displaying Matching Files" screen will appear. It tells you that you can press [Menu] O F (Options Filter) to open the "Show Only" box where you can type in a "filter", e.g. *.wk1 and press the [F10] (OK) function key to "lock in" the filter.

HP Calc

HP Calc And Trailing Zeros

Having used HP Calc for almost 7 years, I thought I knew all its built in tricks. Then, one day I was working on a problem that needed 15 zeros after the decimal place. ([Menu] Option [Tab] 15). While looking at a display full of zeros, I accidentally pressed Fn+ SpaceBar (ZOOM). I was surprised that the words "Full Precision": appeared and that all the trailing zeroes disappeared. When I pressed [ESC], HP Calc reverted to the previous display format. Further exploration of the "Full precision" feature demonstrated that the ZOOM feature will expand a number with less precision to the maximum precision allowed by HP Calc. This means that I can keep HP Calc in Fixed 2 format ([Menu] Option Number Fixed 2) and press the [Fn]+Spacebar keys to display ALL the digits in a result, without any trailing zeros after the decimal point.

A long-time user of HP Calc, Avi Meshar, reminded me that my "accidental discovery" is described in the User's Manual (see page 12-3.)

Memo

Create Headers And Footers

You can create simple headers and footers in Memo documents. Open Memo and press (Menu) Forma(t) Header/Footer. You are presented with a dialogue box with the cursor resting on the Header line.

Type in your header and press [Tab] to move to the Footer line. Type in your footer and press Enter to return to the main Memo screen. You will not see the headers or footers on the screen, but they will be there if you print the document.

Sad to say, there does not seem to be a command to automatically print the page number in either the header or footer fields.

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... QUICK TIPS ...

By Ed Keefe

Lotus 1-2-3

Using the Data Parse Command

Assume that you have used the Smart Clip function in the Appointment Book to write the following data to a file called RM214.PRN. Assume also that you've arranged the output so that all the columns are lined up neatly so that the data from one column doesn't spill over into another column (see Screen 1).

The challenge is to get this data into 1-2-3 and make it usable as text, time and date fields. Here's how to do this.

1. Start Lotus 1-2-3 on the Palmtop and use the [Menu] Worksheet Erase Yes command, if needed, to create an empty worksheet.

2. Use the [Menu] File Import Text command and specify the name of the file to import. In this example it would be RM214.PRN.

3. When the data is imported, it will appear as a series of "labels" in column A.

4. If needed, put the cell pointer in cell A1 and press [Menu] Data Parse.

5. Press [Menu] Format-Line Create to create a "format line" in row 1.

6. Press Format-Line Edit to edit this line.

7. Slide the small cursor under the L and change it to D (for Date).

8. Note that 1-2-3 will have sensed that the time fields are times and will have indicated this with a T in the appropriate columns.

9. Other fields will have been identified as L for Labels (i.e., text).

10. Press Enter and then press Input-Column.

Rm 214	13-Apr-1998	8:00am	9:50am	OFFC340	KATHY
Rm 214	13-Apr-1998	10:00am	11:55am	COMS181UB	ED
Rm 214	13-Apr-1998	1:25pm	3:20pm	COM181UD	BETTY
Rm 214	13-Apr-1998	5:00pm	7:00pm	DATA318	ED
Rm 214	14-Apr-1998	2:30pm	4:25pm	ENGL218	MARTY
Rm 214	14-Apr-1998	5:00pm	7:30pm	DATA310	ED

Screen 1

11. Press the Period key and then use the down arrow key to highlight the series starting in cell A1 and ending in the last row of the series of labels. Press the Enter key to lock this in.

12. Press Output-Range and slide the cell cursor to a row somewhere after the last row of labels. Press Enter.

13. Now press Go and the Data Parsing menus will disappear.

14. Slide the cell pointer to the output range and observe that the strings have been broken into fields.

15. Use the [Menu] Range Format Date Time 2 command and highlight the columns containing time numbers.

16. If needed, use the [Menu] Worksheet Column Set-Width command to widen the columns so that they display all their data.

17. Now you can use the [Menu] Data Sort command to sort the data by start or end times or by date or by any of the columns that contain labels.

18. For more help on Parsing Data, press the [Menu] Data Parse keys and then immediately press [F1] (Help). Likewise press the Data Parse Format-Line Edit keys and press [F1] (Help) to see all the "Symbols" you can use to format fields. Note there's even an "S" symbol to let you Skip a block of data.

Link Files with Formulas

One of the little known commands in Lotus 1-2-3 lets you link a cell in one spreadsheet to a cell in another spreadsheet.

You could use this feature to create a Summary Report based on the data in other worksheets. For example, if you have monthly expense accounts stored in 12 worksheets you could use linking to create a yearly expense summary report.

The Palmtop's 1-2-3 Help file states that you can link data from one cell in a worksheet that is stored in a disk-file to a worksheet that is currently in use.

The generic command to create the link is

+<<File Reference>>Cell Reference

Perhaps a simple example will show how this works.

Start Lotus 1-2-3 with an empty worksheet and use the command [Menu] Data Fill (A1..A10) and use a starting value of 100 and a step value of 100. In cell A11 enter the formula @SUM(A1..A10) and press Enter. You should see 5500 as the result.

Use the command [Menu] File Save and give the file the name DF.WK1 for "DiskFile".

Use the command [Menu] Worksheet Erase Yes to clear the current worksheet

and, in cell A1, enter the linking formula, +<<DF.WK1>>A11 (that's A 11 not "A L L") and press Enter. You should see the value 5500 appear in cell A1.

Now use the command [Menu] File Save and give this worksheet the name LINK.WK1 and then use the command [Menu] File Retrieve DF.WK1 to make the DF.WK1 file active.

Change the value in cell A1 from 100 to 100000. Save the DF worksheet and retrieve the LINK file. You should see 105400 in cell A1. In other words the linked cell will automatically update itself from the current value of the source cell in the DF.WK1 file.

If you want to make the procedure more sophisticated, you can use the [Menu] Range Name Create command to give cell A11 in the DF.WK1 file a name such as DFSUM. Then you can change the linking formula in the LINK.WK1 to +<<DF.WK1>>DFSUM.

Solving Simultaneous Equations in 1-2-3

Remember those problems in algebra that looked something like this?

$$3x + 2y = 5$$

$$4x - 3y = 7$$

"Solve for x and y."

This sample problem consists of two simultaneous linear equations in two unknowns. The problems in my old algebra book escalate to the point where there are 5 simultaneous equations in 5 unknowns! I don't remember how to solve such a complicated problem anymore. That's OK: my Palmtop's 1-2-3 application can do the task with panache and finesse!

Here's how to solve the sample problem above. The procedure for solving a set of 5 or more simultaneous, linear equations in 5 or more unknowns is pretty much the same as the one described below.

Start 1-2-3 and key in the coefficients and the values on the right of the equal sign in the following format

A	B	C
1	3	2
2	4	-3
		7

Now use the command [Menu] Data Matrix Invert and use the arrow keys to highlight cells A1 .. B2 and press Enter.

Enter the output range as A4 and press Enter. You'll get the inverse of the "square matrix".

Now press [Menu] Data Matrix Multiply and use the arrow keys to highlight the inverse matrix (A4..B5) and press Enter.

Enter the second range to multiply as C1..C2 (the values on the right of the equal sign) and press Enter.

Select the output range as C4 and press Enter.

The answer is $X=1.705$ and $Y=-0.05$.

To check your results go to a blank cell on the worksheet and enter the formula $+A1*C4+B1*C5$ and press Enter. You should see 5. Likewise, in another blank cell, enter the formula $+A2*C4+B2*C5$ and you should see 7 when you press Enter.

The Lotus 1-2-3 method of solving these problems works most of the time. Occasionally you may run across a problem that won't produce a result for the inverse matrix. This means that there is no solution, or at least no unique solution, for the problem. In that case you'll have to dig out your algebra book and look up the section that talks about Jacobi and Gauss-Seidel

algorithms.

On this issue's *The HP Palmtop Paper ON DISK*, we've include a Lotus 1-2-3 worksheet called ESOLVE.WK1. When you load the worksheet into 1-2-3 it will automatically display the first of several screens of Help. Scroll down to see the rest of the Help. Press [Home] and then ALT + S to start a 1-2-3 macro that will prompt you for the number of unknowns and then prompt you for each of the coefficients and values. When you've entered all the data, the solution will appear automatically. You can then change the values in the input fields and press ALT + R to find a new solution.

The ESOLVE worksheet can be imported into Microsoft's Excel spreadsheet on a desktop and, if you substitute the CTRL key for Lotus's ALT key, you'll get the same results. Sad to say, this file won't work in Excel Lite on Windows CE Palmtops. If Excel Lite has matrix invert and matrix multiply functions, you should be able to get similar results without using a macro.

HP Calc

Euler Was Right!

Long ago, a mathematician named Leonhard Euler (1707-1783) proposed an elegant equation that combined the values of the transcendental numbers π and e (the base of exponential logarithms) and i , the imaginary number, also known as the square root of -1.

He stated:

$e^{(\pi*i)} = -1$ — that is e raised to the power of π times the imaginary number i is equal to -1.

To learn more about Euler, use the Yahoo search engine to find the Euler home page on the WWW

```
IF(S(Swap):0*(L(R:RealX)+L(I:ImagX))
-L(RealX:RealY)+0*(L(ImagX:ImagY)
+L(RealY:G(R))+L(ImagY:G(I)))
+Swap:
IF(S(Mul) OR S(Div):
IF(S(Div):
0*(L(RealX:RealX/SQ(RADIUS(RealY:ImagY)))
+L(ImagX:ImagX/SQ(RADIUS(RealY:ImagY)))
+L(R:RealX*RealY+ImagX*ImagY)
+L(ImagX:ImagX*RealY-RealX*ImagY))
-L(RealX:G(R))
+Div:0*(L(R:RealX*RealY-ImagX*ImagY)
+L(ImagX:ImagX*RealY+RealX*ImagY))
-L(RealX:G(R))
+Mul):
IF(S(Add):
Add-L(RealX:RealX+RealY)
+0*(L(ImagX:ImagX+ImagY):
IF(S(Sub):
Sub-L(RealX:RealX-RealY)
+0*(L(ImagX:ImagX-ImagY):
IF(S(Inv):
L(RealX:RealX/L(R:SQ(RADIUS(RealX:ImagX))))
+0*(L(ImagX:-ImagX/G(R))
-Inv:0*(L(LnX:LN(RADIUS(RealX:ImagX)))
+L(ImagX:ANGLE(RealX:ImagX)))
-L(RealX:G(LnX))+
IF(S(LnX):
LnX:LnX+0*(L(R:RealX*RealY-ImagX*ImagY)
+0*(L(ImagX:ImagX*RealY+RealX*ImagY)
+L(RealX:G(R))-L(RealX:Exp(G(R))
*COS(ImagX))+0*(L(ImagX:SIN(ImagX)
*Exp(G(R)))+X2Y))))))
```

Screen 2

where you can view the value of e to 2 million places.

Of course, there's an elegant, mathematical way to prove that this is a valid equation, but since the HP Calc program has the values of π and e built in, it should be possible to demonstrate the validity of the equation empirically. The only thing missing is imaginary numbers. Up until now, it has not been possible to use complex numbers on a business calculator. But thanks to a Solver equation adapted from the HP booklet, "Technical Applications: Step-by-Step Solutions for you HP-27S or HP-19B Calculator" Ed 1, November 1987, you will soon be able to match

wits and complex numbers with the rest of the world.

Here's the Solver equation that you can key into the Solver editor. It is given without comments. The version on *The HP Palmtop Paper ON DISK* comes with a companion file COMPLEX.CMT ■ that contains comments as well as further examples on how to use the equation once you have it up and running (see Screen 2).

Once you have the equation up and running, the screen will look like Screen 3 below.

If you press the [F10] (More) key you'll get another screen that will let you subtract, find the inverse, the natural logarithm and the

Calculator: SCR.EQN		Solve Calc		18-MAY-98 1:23 am	
Complex: IF(S(Swap): 0*(L(R:ReX)+L(I:ImX)) -L(ReX:ReY)+0*(...					
		Swap	=	0.00	
		ReX	=	-14.21	
		ImX	=	218.25	
		ReY	=	31.00	
		ImY	=	45.00	
		Mul	=	-14.21	
		Div	=	0.00	
		Add	=	0.00	
RPN RAD		Mul = -14.21			
Help	Swap	ReX	ImX	ReY	ImY
				Mul	Div
				Add	More

Screen 3

complex power of complex numbers.

Here's how to prove Euler's equation empirically.

Quit Solver and start the Math Application in HP Calc. Key in 1 and then, if needed, press the [F10] (More) key until you can press [F7] (E^X) to get 2.7183 in the display. Press N (Store) 1 to save the value of e in register 1. Then press (More) and [F2] (PI) and store that in register 2 (N 2).

Now restart Solver and load and run the Complex equation. Press [Menu] Options Modes Radians and [OK]. Press [Menu] Clear Data to fill the variables with zeros.

First find the value of πi . In complex notation this would be (3.1416, 0) * (0, 1) where the number after the comma represents the imaginary part and the number before the comma is the real part of the complex number.

Press M 2 [RealX] to set RealX = 3.1416. Press 1 [ImagY]. Since the other values in the display are 0, you have set up the two complex numbers (3.1416, 0) and (0, 1). Press the [Mul] key to get the equivalent of (0, 3.1416).

Now press M 1 [RealY] and press 0 [ImagY] to get the equivalent of (2.7183, 0).

Press [Swap] to exchange the values of the complex X and Y numbers. Press [More] and [X2Y] to get the value $X2Y = -1$.

If you press [More], you'll see that RealX does,

indeed, equal -1.0000. (The value for ImagX may show 2.38e-16, but that is close enough to 0 for a "business calculator").

The moral of the story is that Euler was right: $e^{(\pi i)} = -1$.

Software

BigCalc

For those folks who can't get enough of numbers or who are obsessive-compulsive about the accuracy of their computations, we recommend Judson McLendon's BigCalc calculator program. This shareware program produces computations with a precision of 50 digits by default.

If you use the command BIGCALC 1075 and exercise a lot of patience you'll get results with 1075 digits of accuracy on a Palmtop. However the accuracy comes at the expense of time. For example, it took BigCalc 40 seconds to compute the value of $e^{\pi i}$ to 50 decimal places, i.e., 2.7183 raised to the power of 3.1416. If you're satisfied with 15 digits of accuracy, you can get the same result in HP Calc almost instantly.

BigCalc is a DOS program that can be run from Filer. However to get beyond the default 50 digit 'precision', you'll have to get to a DOS prompt.

BigCalc was originally designed for an 80X25 screen so viewing it on the Palmtop will test your eyesight or, if you switch to a 64 X 18 or 40 X 16 zoomed display, it will test your finger dexterity as you move around the screen.

The BigCalc calculator uses the RPN style of data entry and displays the familiar X, Y, Z, T stack on the screen. You can roll the stack up and down and swap the X register with any other register. The program also shows the contents of ten memory registers. All of these allow you to perform register arithmetic. You can enter the value of Pi or 'e' at the touch of the F9 or F10 function keys.

The only thing missing from the calculator is programmability. However, it does have built-in functions for the trig and logarithmic functions and three help screens to get you started using the program. The last of the three help screens gives Judson McLendon's address, phone number, and Compuserve account number. (Note that one or more of these may have changed since the release date of the program.)

The C source code for the program is available at various Simtel sites on the Internet. Use Yahoo or Alta Vista to search for "Bcalc". It may still be available in the Compuserve BCPDOS forum. The current version is

4.4 and was compiled "out of the box" on the HP Palmtop using Borland's C++ 2.0.

I wish I had had such a program (and a computer such as the HP Palmtop to run it) 30 years ago. I could have done away with my copies of the CRC Handbook and my dog-eared copy of Stegun and Abramovitz's "Tables for Mathematical Physics". Come to think of it, there were very few main-frame computers back then that could have performed such computations.

What Is XINE.COM?

XINE.COM is a compression/decompression program located in the D:\BIN directory of the HP 200LX. The small program will compress a single file and, if it detects that a file is already compressed, will decompress it.

XINE doesn't have any built-in procedure to compress multiple files into an archive. For that you'll need PKZip or LHA. However if you don't have either of these compression programs on your Palmtop you can still recover some disk space by using XINE.COM.

For test purposes, I compressed a 97K byte text file to one that was about 34K bytes. The time for compression was slow even on a double speed LX. Decompressing the file was equally slow.

The command to use XINE is: XINE infile outfile where "infile" is the name of the source file and "outfile" is the name of the destination file.

If the infile is compressed the outfile will be decompressed.

Be careful not to use the same name for both the infile and outfile or you'll lose both of them.

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July/August 1998

Software on *The HP Palmtop Paper* ON DISK

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ANDREW3.ZIP	More readable fonts for the Palmtop	*1	Freeware	7
BCALC.ZIP	Calculator with precision to 50 digits	*3	Shareware	35
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PALDR103.ZIP	Draw on the Palmtop	*1	Shareware	3
PE21.ZIP	Text editor for the Palmtop with Spellchecker	*1	Freeware	6
PTP40.ZIP	"Text: The HP Palmtop Paper, July/August 1998"	NA	NA	NA
PTPSK40.ZIP	Database: PTP ON DISK index in GDB format	NA	NA	NA
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VIEW141A.ZIP	File viewing utility for the Palmtop	*1	Shareware	3
YAHTZEE.ZIP	The game of Yahtzee for the Palmtop	*1	Freeware	7
ZIP212.ZIP	"Small, fast file transfer utility"	*1	Shareware	6

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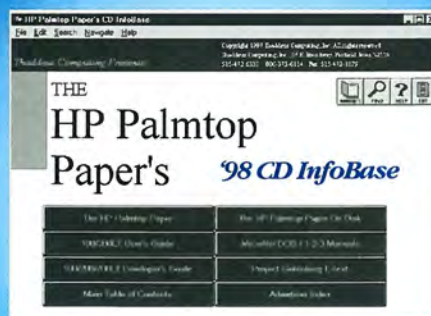
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